

Fig. 1

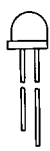


Fig. 2



Fig. 3

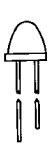


Fig. 4



Fig. 5



Fig. 6

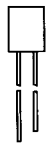


Fig. 7

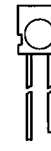


Fig. 8



Fig. 9

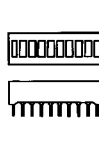


Fig. 10

Lamps use low power for IC compatibility, cool operation and long life expectancy. Shock-proof, solid lens, epoxy construction. Intense light sources available—up to 3000 mcd luminosity. Leads are silver plated, eliminating soldering problems. Viewing angles (the angle between points where the light intensity falls to 50% of peak value) are available to 180°. Order panel mount grommets (at bottom of page) separately.

Mfr. No.	Emitted Color	Lens Type/Color	View Angle	Typical mcd/mA	Fig.
T-3/4 AXIAL LAMPS					
CMD50B	Red	N.D. Clear	80	3.0/20	1
CMD53B	Yellow	N.D. Yellow	80	6.0/20	1
CMD54B	Red	N.D. Red	80	3.5/20	1
CMD64B	H.E. Grn	N.D. Grn	80	8.0/20	1
T-1 LAMPS (.050" LEAD SPACING)					
CMD5074C	Red	N.D. Red	70	2.5/20	5
CMD5075C	Red	Diff. Red	90	1.5/20	5
CMD5077C	Red	Diff. Red	110	1.7/20	2
CMD5374C	Yellow	Diff. Yel	90	9.0/20	5
CMD5474C	H.E. Grn	Diff. Grn	90	9.0/20	5
CMD5774C	H.E. Red	Diff. Red	90	9.0/20	5
CMD5777C	H.E. Red	Diff. Red	180	7.0/20	2
T-1 SUPER BRITE LAMPS					
CMD31101UG	Green	Diff. Grn	60	50/20	3
CMD31101UR/B	Red	Diff. Red	60	90/20	3
CMD31101UR/C	Red	Diff. Red	60	100/20	3
CMD31101UR/D	Red	Diff. Red	60	150/20	3
CMD31101UR/E	Red	Diff. Red	60	250/20	3
CMD31104UG	Green	N.D. Clr	30	200/20	3
CMD31104UR/B	Red	N.D. Clr	30	360/20	3
CMD31104UR/C	Red	N.D. Clr	30	500/20	3
CMD31104UR/D	Red	N.D. Clr	30	700/20	3
CMD31104UR/E	Red	N.D. Clr	30	1000/20	3
T-1 RESISTORED LAMPS					
CMD31121HR-5V	H.E. Red	Diff. Red	60	25.0/5.0	3
CMD31121GR-5V	H.E. Grn	Diff. Grn	60	16.0/5.0	3
CMD31121YR-5V	Yellow	Diff. Yel	60	16.0/5.0	3
CMD31131HR-12V	H.E. Red	Diff. Red	60	25.0/12.0	3
CMD31131GR-12V	H.E. Grn	Diff. Grn	60	16.0/12.0	3
CMD31131YR-12V	Yellow	Diff. Yel	60	16.0/12.0	3
T-100 LAMPS					
CMD54643	H.E. Grn	Diff. Grn	90	5.0/20	3
CMD57640	H.E. Red	Diff. Red	90	2.0/10	3
HLMP1300	H.E. Red	Diff. Red	90	2.0/10	3
HLMP1340	H.E. Red	N.D. P.T.	45	60.0/20	3
RECTANGULAR LAMPS					
CMD54123	H.E. Grn	Diff. Grn	100	4.0/20	7
CMD57123	H.E. Red	Diff. Red	100	4.0/20	7
HLMP0300	H.E. Red	Diff. Red	100	2.5/20	7
HLMP0301	H.E. Red	Diff. Red	100	5.0/20	7
HLMP0401	Yellow	Diff. Yel	100	5.0/20	7
HLMP0503	H.E. Grn	Diff. Grn	100	3.0/20	7
CMD53124A	Yellow	Diff. Yel	100	6.0/20	8
CMD54124A	H.E. Grn	Diff. Grn	100	6.0/20	8
CMD57124A	H.E. Red	Diff. Red	100	6.0/20	8

LEDs

CMD204UWC	White	Clear	40	1.0/—	
CMD333UWC	White	Clear	20	2.3/—	
CMD333UWW	—	—	—	—	
CMD264UWC	Blue	Blue	45	100/20	
CMD333URD	Red	Red	40	400/20	
CMD333UGC	Green	Clear	24	800/20	
CMD333HRC-6	Red	Clear	24	600/20	
CMD333URC-1	Red	Clear	24	1200/20	
CMD333URC-2	Red	Clear	24	2000/20	
4304H1	Red	Red	65	6.3/20	
4304H3	Amber	Amber	60	20/10	
4304H5	Green	Green	75	10/10	
4304H7	Yellow	Yellow	65	6.3/10	
4305H1	Red	Red	30	68/20	
4305H5	Green	Green	20	100/20	
4305H7	Yellow	Yellow	30	160/20	

Mfr. No.	Emitted Color	Lens Type/Color	View Angle	Typical mcd/mA	Fig.
T-1 1/4 LAMPS					
CMD5752	H.E. Red	N.D. Red	28	100.0/20	6
CMD5053	Red	Diff. Red	80	0.5/20	5
CMD5055	Red	Diff. Red	150	0.1/20	5
CMD5153	H.E. Red	Diff. Amb	65	15.0/20	5
CMD5353	Yellow	Diff. Yel	65	15.0/20	5
CMD5354A	Yellow	Diff. Yel	24	25.0/20	5
CMD5453	H.E. Grn	Diff. Grn	75	20.0/20	5
CMD5753	H.E. Red	Diff. Red	65	10.0/20	5
CMD5754A	H.E. Red	Diff. Red	24	25.0/20	5
CMD64531	H.E. Grn	Diff. Grn	75	20.0/20	6
FLV110	Red	Diff. Red	70	3.0/20	6
HLMP3300	H.E. Red	Diff. Red	65	3.5/10	6
HLMP3301	H.E. Red	Diff. Red	65	7.0/10	6
HLMP3315	H.E. Red	N.D. Red	35	18.0/10	6
HLMP3316	H.E. Red	N.D. Red	35	35.0/10	6
HLMP3750	H.E. Red	N.D. P.T.	24	150.0/20	6
HLMP3850	Yellow	N.D. P.T.	24	150.0/20	6
HLMP3950	H.E. Grn	N.D. P.T.	24	150.0/20	6
HLMP4700	H.E. Red	Diff. Red	35	2.0/2	6
HLMP4719	Yellow	Diff. Yel	35	2.0/2	6
CMD3750	H.E. Red	N.D. P.T.	24	150.0/20	6
CMD5054A-1	Red	Diff. Red	24	1.0/10	6
CMD5152	H.E. Red	N.D. Amb	28	100.0/20	6
CMD5352	Yellow	N.D. Yel	28	90.0/20	6
CMD5452	H.E. Grn	N.D. Grn	35	25.0/20	6
CMD50154	Red	Diff. Red	50	1.5/10	4
CMD54154	H.E. Grn	Diff. Grn	50	12.0/10	4
T-1 1/4 RESISTORED LAMPS					
CMD41121HR-5V	H.E. Red	Diff. Red	60	40.0/5.0	6
CMD41121GR-5V	H.E. Grn	Diff. Grn	60	16.0/5.0	6
CMD41121YR-5V	Yellow	Diff. Yel	60	16.0/5.0	6
CMD41131HR-12V	H.E. Red	Diff. Red	60	40.0/12.0	6
CMD41131GR-12V	H.E. Grn	Diff. Grn	60	16.0/12.0	6
CMD41131YR-12V	Yellow	Diff. Yel	60	16.0/12.0	6
T-1 1/4 SUPER BRITE LAMPS					
CMD41101UG	Green	Diff. Grn	60	60/20	6
CMD41101UR/B	Red	Diff. Red	60	100/20	6
CMD41101UR/C	Red	Diff. Red	60	200/20	6
CMD41101UR/D	Red	Diff. Red	60	300/20	6
CMD41101UR/E	Red	Diff. Red	60	500/20	6
CMD41101UR/F	Red	Diff. Red	60	700/20	6
CMD41101UR/G	Red	Diff. Red	60	1000/20	6
CMD41104UG	Green	N.D. Clr	30	300/20	6
CMD41104UR/A	Red	N.D. Clr	30	400/20	6
CMD41104UR/B	Red	N.D. Clr	30	500/20	6
CMD41104UR/C	Red	N.D. Clr	30	1000/20	6
CMD41104UR/D	Red	N.D. Clr	30	2000/20	6
CMD41104UR/E	Red	N.D. Clr	30	3000/20	6
LIGHT BARS/BAR GRAPHS					
CMD57173	H.E. Red	Diff. Red	120	10.0/20	9
HLMP2685	H.E. Red	Diff. Wht	120	80.0/20	9
CMD57164	H.E. Red	Diff. Red	120	1.8/10	10
CMD54164	H.E. Grn	Diff. Wht	120	1.8/10	10

Diff.=Diffused; N.D.=Non-Diffused; P.T.=Pale Tint

T1 3/4 (5mm) RESISTORED LEDs

CMD333ID/HV5	H.E. Red	Red	35	15/—	
CMD333GD/HV5	Green	Green	35	15/—	
CMD333YD/HV5	Yellow	Yellow	35	11/—	
CMD333GD/HV5	H.E. Red	Red	35	15/—	
CMD333GD/HV5	Green	Green	35	13.5/—	
CMD333GD/HV5	Yellow	Yellow	35	11/—	

T1 3/4 (5mm) SUPER BRITE BI-COLOR LEDs

CMD336VRVGW	H.E. Red	White	54	12/20	
CMD336VRVYW	Green	White	54	16/20	
CMD336VYVGW	Yellow	White	54	12/20	
CMD336VYVYW	Green	White	54	10.5/20	
CMD336VYVGW	Yellow	White	54	10.5/20	
CMD336VYVYW	Green	Clear	50	16/20	
CMD336VYVYW	Red	Clear	50	6/10	
CMD336VYVYW	Green	Clear	50	6/10	



STATUSPAK® CIRCUIT BOARD INDICATORS

Printed Circuit Board assembly has been made faster and easier than ever before with the StatusPak™ Circuit Board Indicators. These unique, gangable, right angle and vertical indicators allow you to mount from one to twelve positions in one easy step. Diff.=Diffused/ N.D.=Non-Diffused

T-1 StatusPak™ Circuit Board Indicators

Mfr. No.	Emitted Color	Lens Type /Color	View Angle	Typical mcd/mA	Fig.
CMC01R	H.E. Red	Clear	30°	60/20	1
CMC01Y	Yellow	Clear	30°	60/20	1
CMC01G	H.E. Grn	Clear	30°	60/20	1
CMC01S	H.E. Red	N.D. Red	30°	25/20	1
CMC01Z	Yellow	N.D. Yel	30°	25/20	1
CMC01H	H.E. Grn	N.C. Grn	30°	25/20	1
CMW01R	H.E. Red	Diff. Red	130°	20/20	1
CMW01Y	Yellow	Diff. Yel	120°	12.5/20	1
CMW01G	H.E. Grn	Diff. Grn	120°	12.5/20	1
CMW01O	H.E. Red	Diff. Org	120°	20/20	1
CMW01S	H.E. Red	Diff. Red	120°	2.0/2	1
CMW01Z	Yellow	Diff. Yel	120°	2.0/2	1
CMW01H	H.E. Grn	Diff. Grn	120°	2.0/2	1

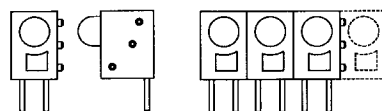


Fig. 1

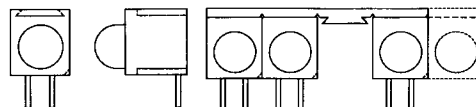


Fig. 2

T-1 1/4 StatusPak™ Circuit Board Indicators

Mfr. No.	Emitted Color	Lens Type /Color	View Angle	Typical mcd/mA	Fig.
CM101R	H.E. Red	Diff. Red	105°	8.0/20	2
CM101S	Red	Diff. Red	120°	3.2/20	2
CM101G	H.E. Grn	Diff. Grn	105°	8.0/20	2
CM101Y	Yellow	Diff. Yel	105°	8.0/20	2

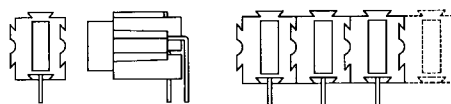


Fig. 3

Rectangular StatusPak™ Circuit Board Indicators

Mfr. No.	Emitted Color	Lens Type /Color	View Angle	Typical mcd/mA	Fig.
CMV01R	H.E. Red	Diff. Red	110°	12.5/10	3
CMV01Y	Yellow	Diff. Yel	110°	8.0/10	3
CMV01G	H.E. Grn	Diff. Grn	110°	8.0/10	3
CMR01R	H.E. Red	Diff. Red	110°	12.5/10	4
CMR01Y	Yellow	Diff. Yel	110°	8.0/10	4
CMR01G	H.E. Grn	Diff. Grn	110°	8.0/10	4
CMS01R	H.E. Red	Diff. Red	110°	12.5/10	5
CMS01Y	Yellow	Diff. Yel	110°	8.0/10	5
CMS01G	H.E. Grn	Diff. Grn	110°	8.0/10	5

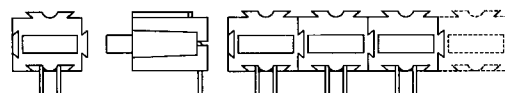


Fig. 4

5306 Series T-1 3/4 Right Angle LED Assembly

5306H1	Red	—	—	6.3/10	
5306H3	Amber	—	—	10.0/10	
5306H5	Green	—	—	10.0/10	
5306H7	Yellow	—	—	6.3/10	
5306H1LC	Red	—	—	2.3/2.0	
5306H5LC	Green	—	—	2.3/2.0	
5306H7LC	Yellow	—	—	2.1/2.0	
5306H1-5V	Red	—	—	8/10	
5306H3-5V	Amber	—	—	8/10	
5306H5-5V	Green	—	—	8/12	

5307 Series T-1 3/4 Right Angle LED Assembly

5307H1	Red	—	—	6.3/10	
5307H3	Amber	—	—	10.0/10	
5307H5	Green	—	—	10.0/10	
5307H7	Yellow	—	—	6.3/10	
5307H1LC	Red	—	—	2.3/2.0	
5307H5LC	Green	—	—	2.3/2.0	
5307H7LC	Yellow	—	—	2.1/2.0	
5307H1-5V	Red	—	—	8/10	
5307H3-5V	Amber	—	—	8/10	
5307H5-5V	Green	—	—	8/12	

5338 Series T-1 3/4 Right Angle LED Assembly

5338H1	Red	—	—	6.3/10	
5338H3	Amber	—	—	10.0/10	
5338H5	Green	—	—	10.0/10	
5338H7	Yellow	—	—	10.0/10	

5681 Series T-1 (3mm) 2 High Gangable

5681G1	Red	—	—	10/10	
5681G3	Amber	—	—	7/10	
5681G5	Green	—	—	16/10	
5681G7	Yellow	—	—	6.3/10	

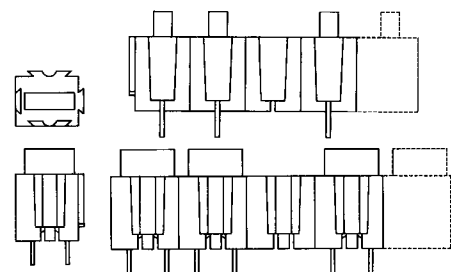
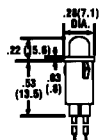


Fig. 5

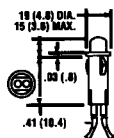
PANEL MOUNTED LEDS

SERIES 5100H 1/4" DIAMETER



Super brite-30mcd, low current available—only 2mA needed. Black nylon housing will snap-in .249-.254" diameter hole in panels .031-.062" thick. Leads are 24 AWG, 6" long.

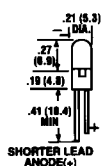
Mfr. No.	Color	Forward Volt at mA
5100H1	Red	2.0 at 20
5100H5	Green	2.2 at 20
5100H7	Yellow	2.1 at 20
5102H1-5V	Red	5.0 at 10
5102H3-5V	Amber	5.0 at 10
5102H5-5V	Green	5.0 at 12
5102H1-12V	Red	12.0 at 13
5102H3-12V	Amber	12.0 at 13
5102H5-12V	Green	12.0 at 13



SERIES 5110F 5/32" DIAMETER

Super brite, T-1 LED, 20mcd diffused lens. Low current available—only 2mA needed. Black nylon housing snap-fits .155-.158" diameter hole in panels .031-.062" thick. Leads 26 AWG, 6" long, stripped 1/2".

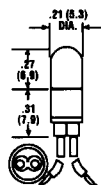
Mfr. No.	Color	Forward Volt at mA
5110F1	Red	2.0 at 10
5110F5	Green	2.2 at 20
5110F7	Yellow	2.1 at 20
5110F1-5V	Red	5.0 at 13
5110F3-5V	Amber	5.0 at 10
5110F5-5V	Green	5.0 at 12
5110F1-12V	Red	12.0 at 13
5110F3-12V	Amber	12.0 at 10
5110F5-12V	Green	12.0 at 12



SERIES 5200F 3/16" DIAMETER

Quick push-in panel mounting. T-1 "Super Brite" LED assemblies will snap into .187-.192" diameter holes in panels .020-.097" thick. Wide angle visibility and high-intensity light output.

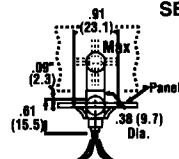
Mfr. No.	Color	Forward Volt at mA
5200F1	Red	2.0 at 10
5200F5	Green	2.2 at 20
5200F7	Yellow	2.1 at 20



SERIES 5210F 3/16" DIAMETER

A wire version of the 5200F (above). This series gives protection against static discharge. Leads are 26 AWG, 4.4-4.8" long, stripped .18-.32".

Mfr. No.	Color	Forward Volt at mA
5210F1	Red	2.0 at 10
5210F5	Green	2.2 at 10
5210F7	Yellow	2.1 at 20

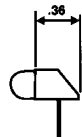
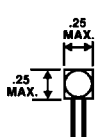


SERIES 5400A 5/16" DIAMETER

Two piece unit consisting of lens and LED housing assembly. Allows pre-wiring into circuit and testing before installation. 24 AWG wire leads 4.4-4.8" long, stripped .43-.57". Natural nylon housing, polycarbonate lens, red lead positive. To install, insert lens into panel, press firmly to snap LED assembly into rear of lens.

Mfr. No.	Color	Forward Volt at mA
5400A1	Red	2.0 at 20
5400A5	Green	2.1 at 20
5400A7	Yellow	2.0 at 20

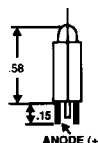
SERIES 5300E, 5300H, 5302H AND 5308H



- Easy to mount
- High contrast ratio
- Includes board standoff to prevent flux entrapment—permits easy washing
- TTL compatible—Requires no external current limiting resistors (Series 5302H* -5V only).
- Housing: Black nylon UL94V-0

Mfr. No.	Color	Forward Volt at mA	Typ. mcd.
5300E1	Red	1.7 at 20	3.0
5300H1	Red	2.0 at 20	30.0
5300H5	Green	2.2 at 20	30.0
5300H7	Yellow	2.1 at 20	25.0
5302H1-5V	Red	5.0 at 10	5.0
5302H3-5V	Amber	5.0 at 10	7.0
5302H5-5V	Green	5.0 at 20	10.0
5300H1LC*	Red	1.8 at 2	2.0
5300H5LC*	Green	1.8 at 2	2.5
5300H7LC*	Yellow	1.9 at 2	2.0
5308H1	Red	3.0 at 35	120.0
5308H5	Green	2.2 at 20	120.0
5308H7	Yellow	2.1 at 20	120.0
5300H1/5	Red/Grn	2.2 at 10	6.0
5300H5/1	Grn/Red	2.2 at 10	6.0
5302H1-12V	Red	12.0 at 12	4.0
5302H3-12V	Amber	12.0 at 12	4.0
5302H5-12V	Green	12.0 at 12	4.0

*LC = Low current, high efficiency.

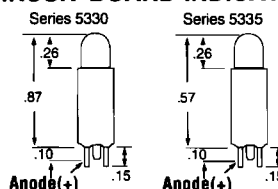


SERIES 5310F

- T-1 Size
- Press-in mounting for accurate location on printed circuit board
- High intensity light output
- Housing: Black nylon.

Mfr. No.	Color	Forward Volt at mA	Typ. mcd.
5310F1	Red	2.0 at 10	6.0
5310F5	Green	2.2 at 20	12.0
5310F7	Yellow	2.1 at 20	20.0

SERIES 5330H AND 5335H CIRCUIT BOARD INDICATORS

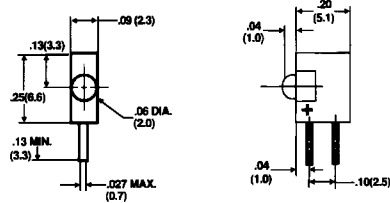


- T-1 1/4" size wide viewing angle (Series 5330H) or intense beam (Series 5331H) LEDs
- Easy, press-in mounting for precise positioning on PC board
- Includes board stand-off to prevent flux entrapment, permits easy washing
- Height matches popular size rocker and toggle switches
- Use Series 5330H and 5335H to fit panel hole openings
- Use Series 5331H to line up behind panel overlays
- Housing: Black nylon UL94V-0

Mfr. No.	Color	Forward Volt at mA	Typ. mcd.
5330H1	Red	2.0 at 20	30.0
5330H5	Green	2.2 at 20	20.0
5330H3	Amber	2.0 at 20	30.0
5330H7	Yellow	2.0 at 20	25.0
5330H1LC†	Red	1.8 at 2	2.0
5330H5LC†	Green	1.8 at 2	2.5
5330H7LC†	Yellow	1.9 at 2	2.0
5330H1-5V*	Red	5.0 at 10	6.0
5330H3-5V*	Amber	5.0 at 10	7.0
5330H5-5V*	Green	5.0 at 10	10.0
5335H1	Red	2.0 at 20	30.0
5335H5	Green	2.2 at 20	30.0
5335H1LC†	Red	1.8 at 2	2.0
5335H5LC†	Green	1.8 at 2	2.5
5335H1-5V*	Red	5.0 at 10	6.0
5335H5-5V*	Green	5.0 at 10	7.0

*Built-in Resistor. tLC = Low current, high efficiency.

SERIES 5350T LEDs

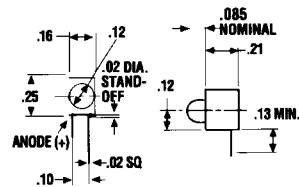


- Small size enables these to be stacked on 0.100" center.
- High-Intensity light output.
- Ideal for use where LEDs must align with opening in a cover panel
- Housing: Black Nylon UL94V-0
- Sub-Miniature 2.0mm LED right angle mounted simplify PC board mounting—Saves assembly time and costs
- Low current styles—only 2 mA to 3.5 mA
- Built-in resistor chip; operates at 5 volts without external resistor

Mfr. No.	Color	Forward Volt at mA
5350T1	Red	2.2 at 10
5350T5	Green	2.3 at 10
5350T7	Yellow	2.2 at 10
5352T1-5V	Red	5.0 at 9.6
5352T3-5V	Amber	5.0 at 10
5352T5-5V	Green	5.0 at 10
5350T1LC*	Red	1.8 at 2
5350T5LC*	Green	1.8 at 2
5350T7LC*	Yellow	1.9 at 2
5352T1-5VLC*	Red	5.0 at 3.5
5352T3-5VLC*	Amber	5.0 at 3.5
5352T5-5VLC*	Green	5.0 at 3.5

* Low current, high efficiency.

SERIES 5600F, 5602F MINIATURE CIRCUIT BOARD INDICATOR LED T-1 BLOCK ASSEMBLIES

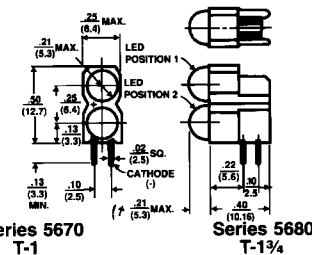


- Easy to mount
- Includes board stand-off to prevent flux entrapment, permits easy washing
- T-1 Size high intensity LED
- Housing: Black Nylon UL94V-0

Mfr. No.	Color	Forward Volt at mA	Typ. mcd.
5600F1	Red	2.0 at 10	6.0
5600F5	Green	2.2 at 20	12.0
5600F7	Yellow	2.1 at 20	20.0
5600F3	Amber	2.0 at 10	5.0
5600F1LC†	Red	1.8 at 2	1.8
5600F5LC†	Green	1.8 at 1	1.8
5600F7LC†	Yellow	1.9 at 2	1.6
5602F1-5V*	Red	5.0 at 10	8.0
5602F3-5V*	Amber	5.0 at 10	8.0
5602F5-5V*	Green	5.0 at 12	8.0

*Resistor built-in 5 volts. † Low current, high efficiency.

SERIES 5670H, 5680F CIRCUIT BOARD INDICATOR SUPER BRITE LED ASSEMBLIES



- T-1¼Size
- Easy Mounting
- Includes board stand-off to prevent flux entrapment, permits easy washing
- Needs minimum space
- Housing: Black nylon UL94V-0

Mfr. No.	Color	Forward Volt at mA	Typ. mcd.
5380E1	Red	1.7 at 20	3.0
5380H1†	Red	2.0 at 20	30.0
5380H5†	Green	2.2 at 20	30.0
5380H7	Yellow	2.1 at 20	25.0
5380H1LC†	Red	1.8 at 2	2.0
5380H5LC†	Green	1.8 at 2	2.5
5380H7LC†	Yellow	1.9 at 2	2.0
5380H1-5V*	Red	5.0 at 10	5.5
5380H3-5V*	Amber	5.0 at 10	7.0
5380H5-5V*	Green	5.0 at 12	10.0
5380H1-12V*	Red	12.0 at 12	4.0
5380H3-12V*	Amber	12.0 at 12	4.0
5380H5-12V*	Green	12.0 at 12	4.0

* Built-in resistor. † Super Brite 30 mcd. ‡ Low current, high efficiency.

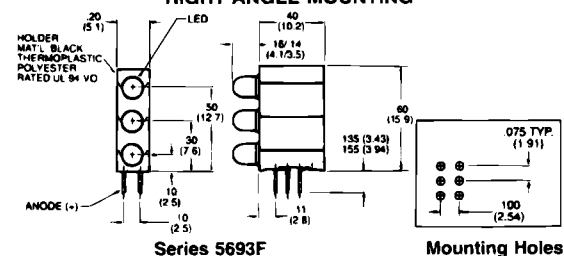
- Dual Mounted
- Allows two LEDs in the same board area required for a single LED
- High contrast ratio, high intensity light output.
- Includes board stand-off to prevent flux entrapment, permits easy washing

Mfr. No.	Color	Forward Volt at mA	Typ. mcd.
5670H1;1*	Red/Red	2.0 at 20	30
5670H5;5*	Grn/Grn	2.0 at 20	20
5670H7;7	Yel/Yel	2.1 at 20	25
5670H3;3	Amb/Amb	2.0 at 20	20
5680F1;1	Red/Red	2.0 at 10	6
5680F5;5	Grn/Grn	2.2 at 20	12
5680F7;7	Yel/Yel	2.1 at 20	20
5680F3;3	Amb/Amb	2.0 at 10	5

*Super Brite 30mcd.

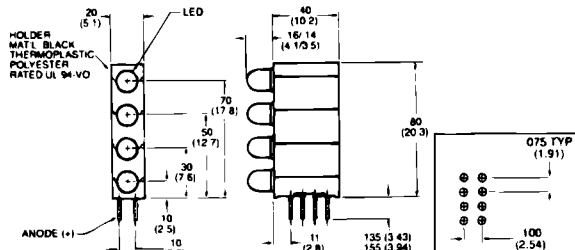
Note: IDI can also supply the user who may have a special requirement, call Relay Specialties for various color/elec. specs.

PC BOARD, 3-UP AND 4-UP T-1 LED LAMPS
SERIES 5693F AND 5694F ALL ONE COLOR HIGH DENSITY
RIGHT ANGLE MOUNTING



Series 5693F

Mounting Holes



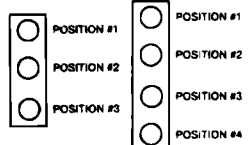
Series 5694F

Mounting Holes

- 3 and 4 T-1 LEDs stack mounted in single block saves space and assembly time
- Black plastic mounting block for high contrast ratio
- As specials colors can be mixed and matched
- High brite and super brite light output
- Meets UL 94V-0 and Bellore flammability specifications
- Standoffs prevent flux entrapment

Mfr. No.	Color Code No.	Color	Typical Intensity mcd	Rated Current	Forward Voltage Typ.
5693F1;1;1-A	1	Red	10.0	10 mA	2.2 V
5693F3;3;3-A	3	Amber	6.5	10 mA	2.2 V
5693F5;5;5-A	5	Green	8.5	10 mA	2.3 V
5693F7;7;7-A	7	Yellow	10.0	10 mA	2.2 V
5694F1;1;1-A	1	Red	10.0	10 mA	2.2 V
5694F3;3;3-A	3	Amber	6.5	10 mA	2.2 V
5694F5;5;5-A	5	Green	8.5	10 mA	2.3 V
5694F7;7;7-A	7	Yellow	10.0	10 mA	2.2 V

MULTI-COLORED 3- AND 4-UP LEDS



Color Code:
1 = Red, 3 = Amber,
5 = Green, 7 = Yellow.

Ordering Information:
Insert number of colors desired for
each position to determine Mfr's Type.

3-Up LEDs

Example: 5693F

4-1 In LEDs

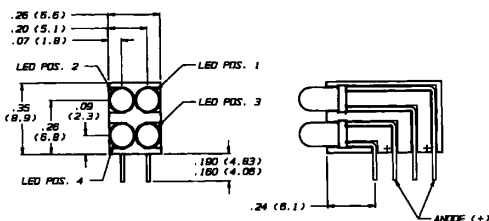
Example: 5694F

Pos. #1	Pos. #2	Pos. #3
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1. $\frac{1}{2}$ 2. $\frac{1}{2}$ 3. $\frac{1}{2}$ 4. $\frac{1}{2}$ 5. $\frac{1}{2}$ 6. $\frac{1}{2}$ 7. $\frac{1}{2}$ 8. $\frac{1}{2}$ 9. $\frac{1}{2}$ 10. $\frac{1}{2}$

Pos. #1	Pos. #2	Pos. #3	Pos. #4
1	2	3	4
5	6	7	8
9	10	11	12
13	14	15	16
17	18	19	20
21	22	23	24
25	26	27	28
29	30	31	32
33	34	35	36
37	38	39	40
41	42	43	44
45	46	47	48
49	50	51	52
53	54	55	56
57	58	59	60
61	62	63	64
65	66	67	68
69	70	71	72
73	74	75	76
77	78	79	80
81	82	83	84
85	86	87	88
89	90	91	92
93	94	95	96
97	98	99	100

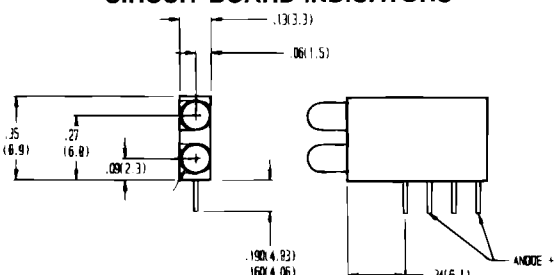
SERIES 5684F QUAD ARRAY CIRCUIT BOARD INDICATORS



4 T-1 LEDs mounted in a single block. Bi-level features dual-inline mounting. Only 0.26" wide allowing for high density mounting. Black plastic housing provides for high contrast ratio. Housing UL 94V-0 black nylon.

Mfr. No.	Color	Typical Intensity	Typical Current
5684F1;1;1;1	Red	10.0mcd	10mA
5684F3;3;3;3	Amber	6.5mcd	10mA
5684F5;5;5;5	Green	8.5mcd	10mA
5684F7;7;7;7	Yellow	10.0mcd	10mA

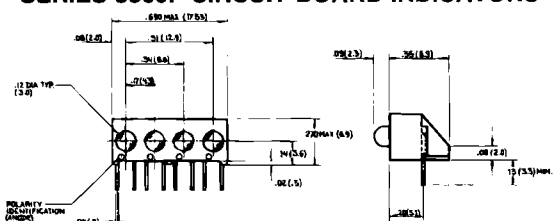
SERIES 5682F BI-LEVEL CIRCUIT BOARD INDICATORS



Bi-level assembly features single-inline mounting. Only 0.13" wide allowing high density mounting. Black plastic housing provides high contrast ratio. Housing UL 94V-0 black nylon. Multi-Colored versions available

Mfr. No.	Color	Typical Intensity	Typical Current
5682F1;1	Red	10.0mcd	10mA
5682F3;3	Amber	6.5mcd	10mA
5682F5;5	Green	8.5mcd	10mA
5682F7;7	Yellow	10.0mcd	10mA

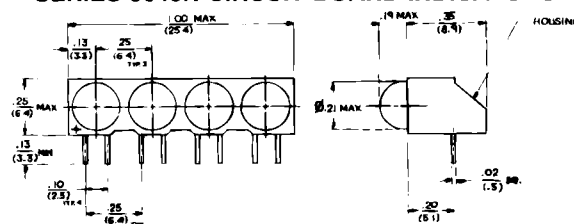
SERIES 5360F CIRCUIT BOARD INDICATORS



Quad assembly with 4 T-1 LEDs allowing for easy installation - assuring matched height and center to center spacing - reduces assembly time and costs. High brightness and super bright LEDs feature high light output and diffused lenses. Low current - only 2 mA available. Standoffs prevent flux entrapment. Housing UL 94V-0 black nylon. Multi-colored versions available.

Mfr. No.	Color	Lum. intensity, mcd	
		Min.	Typ.
5360F1	Red	1.5	6.0
5360F3	Amber	3.0	5.0
5360F5	Green	2.0	12.0
5360F7	Yellow	1.5	20.0

SERIES 5640H CIRCUIT BOARD INDICATORS

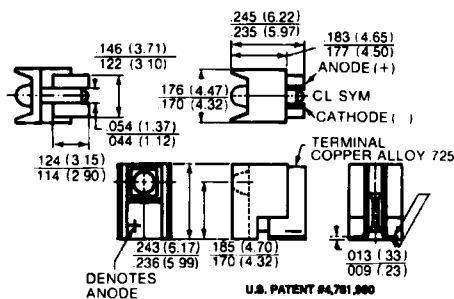


Quad assembly with 4 T-1¾ LEDs allowing for easy installation—assuring matched height and center to center spacing—reduces assembly time and costs. Super Brite LEDs feature high light output and diffused lenses. Low current—only 2mA available. Standoffs prevent flux entrapment. Housing UL 94V-0 black nylon. Multi-Colored versions available.

Mfr. No.	Color	Lum. Intensity, mcd	
		Min.	Typ.
5640H1	Red	3.0	30.0
5640H3	Amber	4.0	20.0
5640H5	Green	3.0	30.0
5640H7	Yellow	2.5	25.0



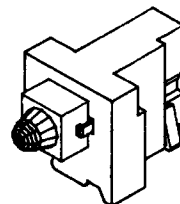
SERIES 6200T SUB-MINIATURE 1.65 MM RIGHT ANGLE BLOCK ASSEMBLY



Designated the model 6200 series, these devices position LEDs for easy visibility, particularly in applications where boards are mounted in parallel close to one another. 6200 series surface mount LEDs are available in red, amber, green, and yellow colors, in standard and low-current versions, and in both standard and low-current 5 volt resistor-included versions. 6200 series LEDs are designed and packaged to meet the requirements of automated surface mount production lines. These devices will withstand processing temperatures of either IR or vapor-phase reflow, and are compatible with most common fluxes and cleaning agents. **Housing:**Black Polyphenylene Sulfide, UL 94V-0.

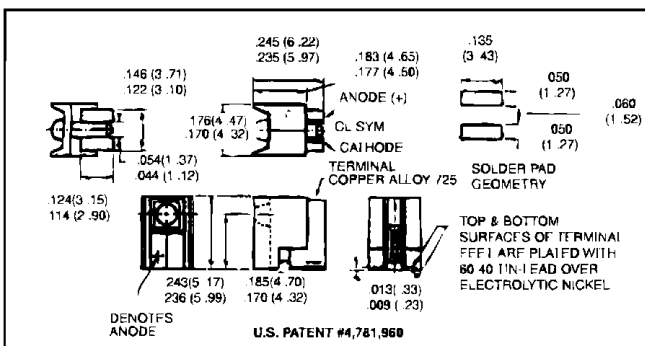
Mfr. No.	Color	Typical Intensity	Rated Current	Forward Voltage Typ.
6200T1	Red	5.0mcd	10.0 mA	2.2
6200T3	Amber	5.0mcd	10.0 mA	2.0
6200T5	Green	4.0mcd	10.0 mA	2.3
6200T7	Yellow	3.8mcd	10.0 mA	2.2

SERIES 6255T SURFACE MOUNT CIRCUIT BOARD INDICATOR



Full surface mount reflow compatibility. Wide view angle and super brite output. Direct optics, no bends or losses. Ideal drop-in replacement for Dialight 591 Series Prism. Black housing provides high contrast. UL 94V-0 rated housing.

Mfr. No.	Color	Typical Intensity	Current mA
6255T1	Red	5.0mcd	10
6255T3	Amber	5.0mcd	10
6255T5	Green	4.0mcd	10
6255T7	Yellow	3.8mcd	10
6255T1LC	Red	0.5mcd	2
6255T5LC	Green	1.2mcd	2
6255T7LC	Yellow	0.5mcd	2



- Tape and reel packaged for high-speed pick-and-place installation
- Packaged 1000 pieces per reel
- Convection and vapor-phase reflow compatible
- Compact form enables high density placement
- Ideal for backlighting applications
- Wide angle viewing
- Direct-view optics provide smooth uniform appearance
- High output
- Low current (2 mA)
- Built-in resistor for 5V and 5V low-current
- 100K+ hour MTBF
- Easy post-reflow solder joint inspection
- No adhesives
- UL94 V-0 rated housing of black polyphenylene sulfide

ELECTRO-OPTICAL CHARACTERISTICS AND RATINGS

Part Number	Emitted Color	Lens Color	Luminous Intensity		Forward Voltage			Peak Wavelength (nm)
			Typ. mcd	mA	Type.	Max	mA	
6200T1	Red	Red	5.0	10	2.2	3.0	10	635
6200T3	Amber	Amber	5.0	10	2.0	3.0	10	603
6200T5	Green	Green	4.0	10	2.3	3.0	10	565
6200T7	Yellow	Yellow	3.8	10	2.2	3.0	10	585
6200T1LC	Red	Red	.5	2	1.8	2.2	2	635
6200T5LC	Green	Green	1.2	2	1.8	2.2	2	565
6200T7LC	Yellow	Yellow	.5	2	1.9	2.7	2	583
6202T1-5V	Red	Red	5.0	9.6	5.0	6.0	9.6	635
6202T3-5V	Amber	Amber	5.0	10	5.0	6.0	10	585
6202T5-5V	Green	Green	5.0	10	5.0	6.0	10	583
6202T1-5VLC	Red	Red	2.0	3.5	5.0	6.0	3.5	635
6202T3-5VLC	Amber	Amber	4.0	3.5	5.0	6.0	3.5	565
6202T5-5VLC	Green	Green	2.0	3.5	5.0	6.0	3.5	583

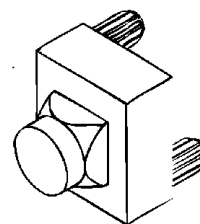




Part Number	7020X1	7020X3	7020X5	7020X7	7020X15	7020X21	7020X23	7020X33
Output Color	Red	Orange	Green	Yellow	Green	Red	Orange	Yellow
Diffused/Non-Diffused	Diffused	Diffused	Diffused	Diffused	Diffused	Diffused	Diffused	Diffused
Package Color	Clear	Clear	Clear	Clear	Clear	Clear	Clear	Clear
Rated Current (mA)	20	20	20	20	20	20	20	20
Forward Voltage Typ. (V)	1.7	2.2	2.1	2.2	2.1	1.9	1.9	1.9
Forward Voltage Max. (V)	2.3	2.8	2.8	2.8	2.8	2.4	2.4	2.4
Luminous Intensity Min. (mcd)	7.6	2.2	7.0	2.2	1.6	16.0	16.0	16.0
Luminous Intensity Typ. (mcd)	11.7	3.7	6.4	3.7	2.7	50.0	65.0	65.0
Luminous Intensity Max. (mcd)	-	-	-	-	-	-	-	-
Peak Wavelength (nm)	660	605	560	580	555	630	609	592
Viewing Angle (degrees)	75	75	75	75	75	75	75	75
Power Dissipation (mW)	57.5	70	70	70	70	81	81	81
Operating Temperature (°C)	-30 to +85	-30 to +85	-30 to +85	-30 to +85	-30 to +85	-40 to +85	-40 to +85	-40 to +85
Storage Temperature (°C)	-40 to +100	-40 to +100	-40 to +100	-40 to +100	-40 to +100	-40 to +100	-40 to +100	-40 to +100
Peak Forward Current Max. (mA)	60	60	60	60	60	100	100	100
Reverse Voltage (IR=100µA) (V)	4	4	4	4	4	5	5	5
Lead Solder Time @ 260°C (seconds)	5	5	5	5	5	5	5	5

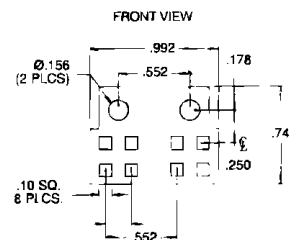
Part Number	Emitted Color	Lens Color	Package Type	Luminous Intensity			Forward Voltage			Peak Wavelength (nm)	View Angle Degrees
				Min. mcd	Typ. mcd	mA	Type.	Max	mA		
CMD67-22VRVC/TR8	H.E. Red	Clear	Dual	6.0	10.0	20	2.0	2.8	20	640	120°
	Green	Clear	Dual	15.0	25.0	20	2.1	2.8	20	570	120°
CMD67-22SRUC/TR8	Super Red	Clear	Dual	25.0	40.0	20	1.7	2.4	20	660	120°
	Green	Clear	Dual	15.0	25.0	20	2.1	2.8	20	565	120°

Part Number	7017X21	7017X23	7017X3	7017X15	7017X13	7017X5	7017X1	7017X7	7017X33
Output Color	Red	Orange	Orange	Green	Yellow	Green	Red	Yellow	Yellow
Diffused/Non-Diffused	Diffused	Diffused	Diffused	Diffused	Diffused	Diffused	Diffused	Diffused	Diffused
Package Color	White	White	Clear	Clear	Clear	Clear	Clear	Clear	White
Power Dissipation (mW)	81	81	70	70	70	70	57.5	70	81
Forward Current (mA)	30	30	25	25	25	25	25	25	30
Peak Forward Current (mA)	100	100	60	60	60	60	60	60	100
Reverse Voltage (V)	5	5	4	4	4	4	4	4	5
Operating Temperature (°C)	-40 to +85	-30 to +85	-30 to +85	-30 to +85	-30 to +85	-30 to +85	-30 to +85	-30 to +85	-40 to +85
Storage Temperature (°C)	-40 to +100	-40 to +100	-40 to +100	-40 to +100	-40 to +100	-40 to +100	-40 to +100	-40 to +100	-40 to +100
Forward Voltage Typ. (IF=20mA)	1.9	1.9	2.2	2.1	2.2	2.1	1.7	2.1	1.9
Forward Voltage Max. (IF=20mA)	2.4	2.4	2.8	2.8	2.8	2.8	2.3	2.8	2.4
Reverse Current Typ. (VR=4V)	-	-	-	-	-	-	-	-	-
Reverse Current Max. (VR=4V)	100	100	100	100	100	100	100	100	100
Luminous Intensity Min. (IF=20 mA)	16	16	2.0	1.4	2.0	3.8	7.0	7.0	16
Luminous Intensity Typ. (IF=20 mA)	50	65	3.4	2.4	3.4	6.4	11.7	11.7	65
Peak Wavelength (IF=20 mA)	630	609	605	555	580	560	660	570	592
Special Line Half Width (IF=20 mA)	15	15	30	30	30	30	30	30	15
Viewing Angle (degrees)	70	70	70	70	70	70	70	70	70



ISOMETRIC VIEW
FOR REFERENCE ONLY
SCALE 4 : 1

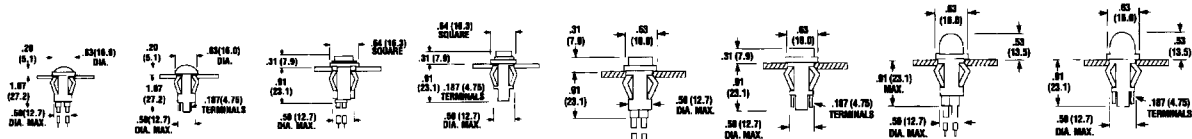
- | MODEL | OUTPUT COLOR |
|--------|--------------|
| 7511C5 | GREEN |
| 7511C1 | RED |
| 7511C7 | YELLOW |
| 7511C2 | CLEAR |
| 7512D1 | RED |
| 7512D2 | CLEAR |
| 7512D5 | GREEN |
| 7512D7 | YELLOW |



- | MODEL | OUTPUT COLOR |
|--------|----------------------|
| 7511G2 | DIFFUSED TRANSLUCENT |
| 7511G1 | CLEAR RED TINT |
| 7511G5 | CLEAR GREEN TINT |
| 7511G7 | CLEAR YELLOW |



SERIES 1000 NEON LAMPS



Series 1030D Series 1030QD Series 1050N Series 1050QN Series 1050C Series 1050QC Series 1050A Series 1050QA

UL file no. 20325. CSA file no. 13346. White nylon housing will snap-fit into a .500-.505" diameter hole in panels .020-.100" thick. Bezel: Stainless steel.

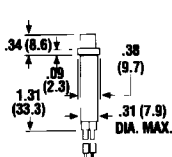
Mfr. No.	Color	VAC
Pilot Lamps with Low-Profile Lenses		
1030D1†	Red	105-125
1030D3†	Amber	105-125
1030D4†	White	105-125
1032D5†*	Green	105-125
1030QD1‡	Red	105-125
1030QD3‡	Amber	105-125
1030QD4‡	White	105-125
1032QD5‡*	Green	105-125
1031D1†	Red	208-250
1031D3†	Amber	208-250
1033D5†	Green	208-250
1031QD1‡	Red	208-250
1031QD3‡	Amber	208-250
1033QD5‡	Green	208-250
Pilot Lamps with Square Lenses		
1050N1†	Red	105-125
1050N3†	Amber	105-125
1050N4†	White	105-125
1052N5†*	Green	105-125
1050QN1‡	Red	105-125
1050QN3‡	Amber	105-125
1050QN4‡	White	105-125
1052QN5‡*	Green	105-125
Pilot Lamps with High-Hat Lenses		
1050C1†	Red	105-125
1050C2†	Clear	105-125
1050C3†	Amber	105-125

Mfr. No.	Color	VAC
1050C4†	White	105-125
1052C5†	Green	105-125
1050QC1‡	Red	105-125
1050QC2‡	Clear	105-125
1050QC3‡	Amber	105-125
1050QC4‡	White	105-125
1052QC5‡*	Green	105-125
1051C1†	Red	208-250
1051C3†	Amber	208-250
1053C5†	Green	208-250
1051QC1‡	Red	208-250
1051QC3‡	Amber	208-250
1053QC5‡	Green	208-250

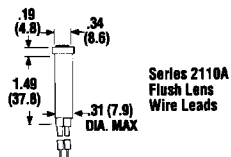
Pilot Lamps with Dome Lenses		
1050A1†	Red	105-125
1050A3†	Amber	105-125
1050A4†	White	105-125
1052A5†*	Green	105-125
1050QA1‡	Red	105-125
1050QA2‡	Clear	105-125
1050QA3‡	Amber	105-125
1052QA5‡*	Green	105-125
1051A1†	Red	208-250
1051A3†	Amber	208-250
1053A5†	Green	208-250
1051QA1‡	Red	208-250
1051QA3‡	Amber	208-250
1053QA5‡	Green	208-250

† With wire leads 4.4-4.8" long, stripped .43-.57". ‡ With .187"-.020" tinned brass terminals. * Incorporates G2B lamp and resistor.

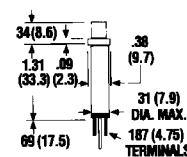
SERIES 2150, 2110 GLO-DOT MINIATURE NEON PILOT LIGHTS



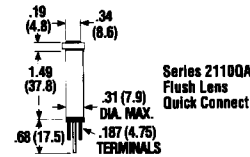
Series 2150A
High Hat
Wire Leads



Series 2110A
Flush Lens
Wire Leads



Series 2150QA
High Hat
Quick Connect



Series 2110QA
Flush Lens
Quick Connect

These miniature neon pilot lights are engineered for long service and reliability. Rugged, they are unaffected by shock and vibration. Available in two lens shapes, flush and high-hat. Mounting hole is .31" minimum diam-

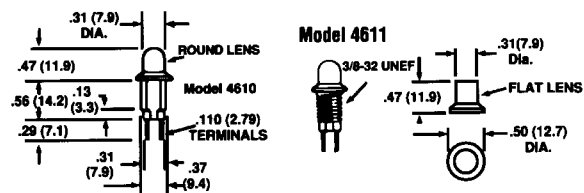
eter. **Average operating life:** 25,000 hours. UL recognized and CSA approved. Supplied with push-on speed nut (SN1287). Supplied with 4.4-4.8" wire terminals, stripped 1/2" or .187"-.020" tinned brass terminals.

Mfr. No.	Color	VAC
2150A1	Red	105-125
2150A3	Amber	105-125
2150A4	White	105-125
2150A2	Clear	105-125
2152A5*	Green	105-125
2110A1	Red	105-125
2110A3	Amber	105-125
2110A4	White	105-125
2110A2	Clear	105-125
2112A5*	Green	105-125
2150QA1	Red	105-125
2150QA3	Amber	105-125
2150QA4	White	105-125
2152QA5*	Green	105-125
2110QA1	Red	105-125
2110QA3	Amber	105-125
2110QA4	White	105-125
2110QA2	Clear	105-125
2112QA5*	Green	105-125
2151A1	Red	208-250
2151A2	Clear	208-250

Mfr. No.	Color	VAC
2151A3	Amber	208-250
2151A4	White	208-250
2153A5*	Green	208-250
2153A6†	Blue	208-250
2111A1	Red	208-250
2111A2	Clear	208-250
2111A3	Amber	208-250
2111A4	White	208-250
2113A5*	Green	208-250
2113A6†	Blue	208-250
2151QA1	Red	208-250
2151QA3	Amber	208-250
2151QA4	White	208-250
2153QA5*	Green	208-250
2111QA1	Red	208-250
2111QA2	Clear	208-250
2111QA3	Amber	208-250
2111QA4	White	208-250
2113QA5*	Green	208-250

* Incorporates G2B lamp and resistor. † Incorporates T2B lamp and resistor.

TINY-MITE INDICATOR LIGHT ASSEMBLIES



Ordering Information: Complete assembly consists of socket, lens and lamp. Each sold separately. **Mounting:** No. 4610 (without thread) supplied with push-on speednut - can be keyed to prevent rotation. No. 4611 (threaded) supplied with zinc finish hex nut and internal tooth lockwasher. **Lens:** Polycarbonate. **Bezel:** Polished stainless steel. **Socket:** Black nylon.

SOCKETS

Mfr. No.	Description
4610	Unthreaded
4611	Threaded

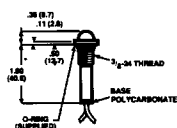
SUB-MINIATURE WEDGE-BASE LAMPS

Mfr. No.	Design Voltage	Amps	Candle Power (Approx.)	Rated Life Hours
56	5.0	.115	.15	20,000
84	6.3	.040	.03	20,000
86	6.3	.200	.40	20,000
18	14.0	.040	.13	5,000
73	14.0	.080	.30	15,000
85	28.0	.040	.30	7,000
17	28.0	.060	.65	5,000

LENSES

Mfr. No.		Color
Round Lens	Flat Lens	
4621	4631	Red
4623	4633	Amber
4625	4635	Green
4626	4636	Blue
4627	4637	Yellow

OIL-TIGHT SERIES 6000



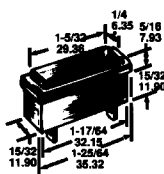
- Fully gasketed construction
- Meets NEMA specification ICS1-110.60
- Neon models come with built-in current limiting resistor. LED models come with built-in current limiting resistor and a rectifier diode.

Mounting: Supplied with internal tooth lockwasher and hex nut; requires .36" min. dia. hole. **Wire Leads:** No. 22 AWG (105°C), 4.4-4.8" long stripped .43-.47". **Lens:** Polycarbonate. **Bezel:** Stainless steel. **Gaskets:** Buna-N. **Housing:** Black nylon.

Mfr. No.	Volts	Color
Solid State Lamps		
6091M1-12V	12	Red
6091M5-12V	12	Green
6091M7-12V	12	Yellow
6091M1-24V	24	Red
6091M5-24V	24	Green
6091M7-24V	24	Yellow
Neon Lamps		
6010M1	125	Red
6010M3	125	Amber
6012M5	125	Green*
6011M1	250	Red
6011M3	250	Amber
6013M5	250	Green*

* Incorporates G2B lamp and resistor.

RECTANGULAR NEON PILOT LIGHTS

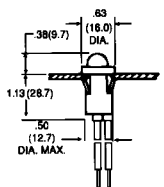


Series 2300 will snap-fit into .032-.100" thick panels without a speednut and into other thicknesses with a speednut. Mounting hole: 1.276-1.281"x.395-.400".

Mfr. No.	Color	VAC
2330QD1*	Red	120
2330QD3*	Amber	120
2332QD5*†	Green	120
2330D1†	Red	120
2330D3†	Amber	120
2332D5†‡	Green	120

* With .250" tinned brass terminals. † With 4.4-4.8" long wire leads, stripped .43-.57". Speed nuts sold separately. ‡ Incorporates G2B lamp with resistor.

INCANDESCENT AND SOLID STATE INDICATORS

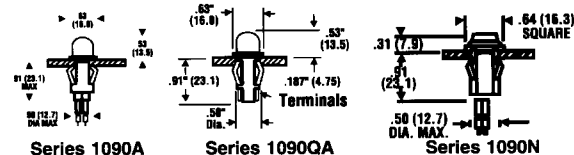


Series 1091M

Series 1091M is solid state, complete with built-in current limiting resistor and rectifier diode. For solid state lens colors, insert 1-Red, 5-Green, 7-Yellow, for "x" in the stock number.

Solid State Indicators

Mfr. No.	Volts
1091M*-12V	12
1091M*-24V	24
1091M*-125VAC	105-125VAC

**Series 1090A**

Series 1090QA

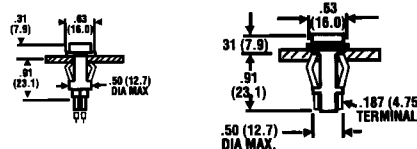
Series 1090N

Series 1090 are incandescent and are available in 6, 12, or 28 volt types. For incandescent lens colors, insert 1-Red, 5-Green, 7-Yellow, 4-White, for "w" in the stock number.

Mfr. No.	Volts
Incandescent Indicators with Dome Lenses	
1090A*-12V	12
1090A*-28V	28
1090QA*-12V	12
1090QA*-28V	28

Incandescent Indicators with Square Lenses

1090N*-12V	12
1090N*-28V	28



Series 1090C

Series 1090QC

Incandescent Indicators with High-Hat Lenses

Mr. No.	Volts
1090C*-12V	12
1090C*-28V	28
1090QC*12V	12
1090QC*28V	28

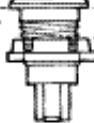
* 125 VAC supplied with 6" white wire, stripped 1/2" with external 3.9K 1/2 watt resistor attached to one lead, covered with shrink tubing insulation.



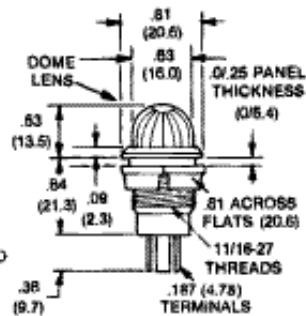
UL FILE# E20325
CSA FILE# LR13346

FLAT LENS

.53
(13.5)



.25-.34(6.4-8.6)
THICK PANEL WHEN
HEX. NUT IS REVERSED
AS SHOWN.

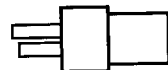


All dimensions are in inches (MM).

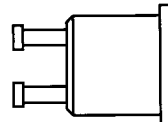
Part Number

Lens Color	Dome	Flat
Red	2811	2851
Clear	2812	2852
Amber	2813	2853
White	2814	2854
Green	2815	2855
Blue	2816	2856
Yellow	2817	2857

BI PIN SOCKETS

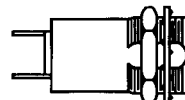


Mfr. No. CM21-1 — Bi Pin Socket for use with T-¾ and T-1 Bi Pin Lamps

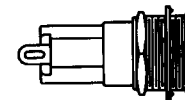


Mfr. No. CM21-2 — Bi Pin Socket for use with T-1¾ Bi Pin Lamps

5100, 5200 SERIES RELAMPABLE INDICATORS



5100 Series



5200 Series

Select from 5100 series standard and 5200 series deluxe indicators from table below. Standard indicators must be assembled. Order lamps and lenses separately below. UL recognized, CSA certified.

Mfr. No.	Max. Volts	Max. Amps	Terminals
5100 SERIES INDICATORS			
5100-822	120	0.170	Solder lugs
5100-832	125	1.800	Solder lugs
5100-842	250	1.800	Solder lugs
5100-823	120	0.170	Screw lugs
5100-824	120	0.170	Quick connect 0.250" lugs
5100-834	125	1.800	Quick connect 0.250" lugs
5100-844	250	1.800	Quick connect 0.250" lugs

5200 SERIES STANDARD T-3¼ INDICATORS

5200-222	120	0.170	Solder lugs
5200-232	125	1.800	Solder lugs
5200-242	250	1.800	Solder lugs

5100, 5200 SERIES POLYCARBONATE LENSES

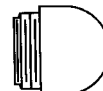


Fig. 1

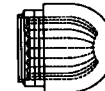
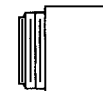


Fig. 2



TFig. 3

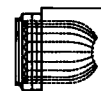
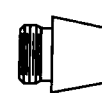
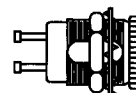


Fig. 4

Use only transparent or fluted lens with neon lamps, ordered separately. When ordering, add first letter of color choice to the end of the Mfr. no. * (R=Red, A=Amber, G=Green, C=Clear) † (R=Red, Y=Yellow, G=Green, W=White)

Mfr. No.	Figure
25P-306*	1
25P-307†	1
25P-326*	2
25P-606*	3
25P-607†	3
25P-626*	4

GEMLITE INDICATOR



Mfr. No. 5160-458 (Base Only) — Reliable indicators used in military and commercial applications where size and lamp replacement are prime considerations. 0.218" panel thickness. Accepts T-1 sub-midget flange lamp. Order lamp separately. Mounts in 0.3125" diameter hole.

TRANSLUCENT CYLINDRICAL LENS

Mfr. No. 160A-604* — For Gemlite base, ordered separately above. Available in red, yellow, green and white. When ordering, add first letter of color choice to the end of the type number. * (R=Red, Y=Yellow, G=Green, W=White).

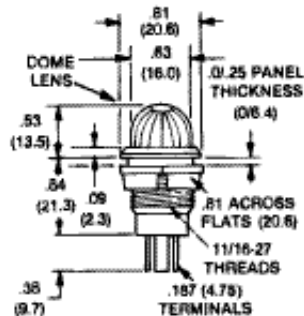
UL FILE# E20325
CSA FILE# LR13346

FLAT LENS

.53
(13.5)



.25-.34(6.4-8.6)
THICK PANEL WHEN
HEX. NUT IS REVERSED
AS SHOWN.



All dimensions are in inches (MM).

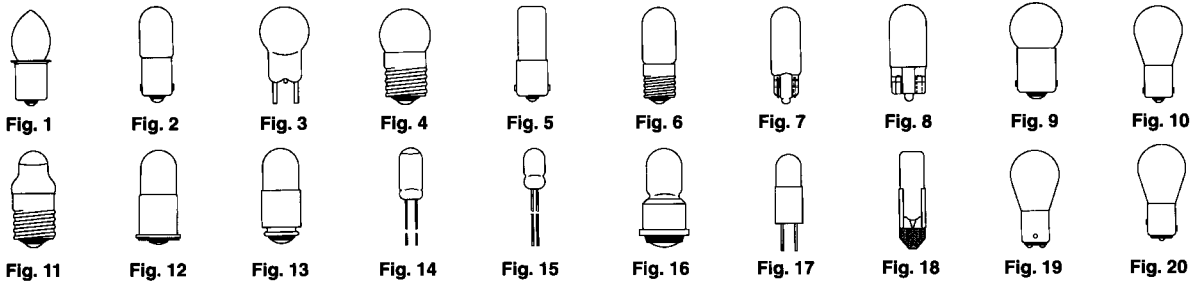
Part Number

Lens Color	Dome	Flat
Red	2811	2851
Clear	2812	2852
Amber	2813	2853
White	2814	2854
Green	2815	2855
Blue	2816	2856
Yellow	2817	2857



13

P I L O T L I G H T S & I N D I C A T O R S



Lamp Type	Design		Average Life Hours	Fig.	Lamp Size
	V	Amps			
PR2	2.38	0.500	15	1	B-3½
PR3	3.57	0.500	15	1	B-3½
PR4	2.33	0.270	10	1	B-3½
PR6	2.47	0.300	30	1	B-3½
PR7	3.70	0.300	30	1	B-3½
1893	14.00	0.330	7500	2	T-¾
43	2.50	0.500	3000	2	T-¾
1892	14.40	0.120	1000	2	T-¾
1891	14.00	0.240	500	2	T-¾
313	28.00	0.170	500	2	T-¾
755	6.30	0.150	20000	2	T-¾
44	6.30	0.250	3000	2	T-¾
45	3.20	0.350	3000	2	T-¾
47	6.30	0.150	3000	2	T-¾
756	14.00	0.080	15000	2	T-¾
757	28.00	0.080	7500	2	T-¾
8-3995	130.00	0.020	2000	2	T-¾
1866	6.30	0.250	5000	2	T-¾
1864	28.00	0.170	1500	2	T-¾
1819	28.00	0.040	2500	2	T-¾
1816	13.00	0.330	1000	2	T-¾
1813	14.40	0.100	1000	2	T-¾
1815	14.00	0.200	3000	2	T-¾
1847	6.30	0.150	5000	2	T-¾
1818	24.00	0.170	250	2	T-¾
1850	5.00	0.090	1500	2	T-¾
1822	36.00	0.100	1000	2	T-¾
1820	28.00	0.100	1000	2	T-¾
1828	37.50	0.050	3000	2	T-¾
1829	28.00	0.070	1000	2	T-¾
1835	55.00	0.050	5000	2	T-¾
1495	28.00	0.300	500	2	T-4½
1434	3.70	2.750	100	3	T-5
12	6.30	0.150	5000	3	G-3½
19	14.40	0.100	1000	3	G-3½
13	3.70	0.300	15	4	G-3½
50	7.50	0.220	1000	4	G-3½
509K	24.00	0.180	1000	4	G-6
8-967	120.00	0.025	5000	5	T-2
120MB	120.00	0.025	5000	5	T-2
28MB	28.00	0.040	5000	5	T-2
60MB	60.00	0.050	7500	5	T-2
24MB	24.00	0.073	10000	5	T-2
8362	14.00	0.080	15000	6	T-1¼
335	28.00	0.040	4000	6	T-1¼
399	28.00	0.040	7000	6	T-1¼
1821	28.00	0.170	500	6	T-1¼
1769	2.50	0.200	500	6	T-1¼
40	6.30	0.150	3000	6	T-¾
1823	48.00	0.100	1000	6	T-¾
86	6.30	0.200	20000	7	T-1¼
85	28.00	0.040	7000	7	T-1¼
73	14.00	0.080	15000	7	T-1¼
161	14.00	0.190	1500	8	T-¾
656	28.00	0.060	2500	8	T-¾
259	6.30	0.250	5000	8	T-¾
194	14.00	0.270	1500	8	T-¾
53	14.40	0.120	1000	9	G-3½
51	7.50	0.220	1000	9	G-3½
356	28.00	0.170	500	9	G-3½
1450	24.00	0.035	3000	9	G-3½
219	6.30	0.250	5000	9	G-4½
55	7.00	0.410	500	9	G-4½
1895	14.00	0.270	1500	9	G-4½
82	6.50	1.020	500	9	G-6 D.C.
1251	28.00	0.230	2000	9	G-6
307	28.00	0.660	300	10	S-8
93	12.80	1.040	500	10	S-8
2232	28.00	0.770	2000	10	S-8
2232	28.00	0.643	2000	10	S-8
1156	12.80	2.100	600	10	S-8
3011	28.00	1.290	1000	10	S-11
222	2.25	0.250	5	11	GTL-3
385	28.00	0.040	10000	12	T-1¼
387	28.00	0.040	7000	12	T-1¼
394	12.00	0.040	10000	12	T-1¼
381	6.30	0.200	20000	12	T-1¼
7333	5.00	0.060	25000	12	T-1¼
7335	5.00	0.115	40000	12	T-1¼
7341	28.00	0.065	5000	12	T-1¼
8918	14.00	0.100	10000	12	T-1¼
382	14.00	0.080	15000	12	T-1¼
328	6.00	0.200	1000	12	T-1¼
370	18.00	0.040	10000	12	T-1¼
338	2.70	0.060	6000	12	T-1¼
367	10.00	0.040	5000	12	T-1¼
349	6.30	0.200	5000	12	T-1¼
345	6.00	0.040	10000	12	T-1¼
376	28.00	0.060	25000	12	T-1¼
330	14.00	0.080	1500	12	T-1¼
327	28.00	0.040	4000	12	T-1¼
3150	5.00	0.060	5000	12	T-1¼
388	28.00	0.040	7000	13	T-1¼
398	6.30	0.200	5000	13	T-1¼
334	28.00	0.040	4000	13	T-1¼
386	14.00	0.080	15000	13	T-1¼
336	14.00	0.080	1500	13	T-1¼
8-374	2.50	0.350	3000	14	TL-1¼
7153	5.00	0.115	40000	15	T-¾
6833AS15	5.00	0.060	25000	15	T-¾
6833	5.00	0.060	25000	15	T-¾
7153AS15	5.00	0.115	40000	15	T-¾
7219	12.00	0.060	10000	15	T-1
715AS15	5.00	0.115	40000	15	T-1
7152AS15	5.00	0.115	40000	15	T-1
7152	5.00	0.115	40000	15	T-1
715	5.00	0.115	40000	15	T-1
683	5.00	0.060	25000	15	T-1
683AS15	5.00	0.060	25000	15	T-1
680	5.00	0.060	60000	15	T-1
6838	28.00	0.024	4000	15	T-1
718	5.00	0.115	40000	15	T-1
682	5.00	0.060	60000	16	T-1
685	5.00	0.060	25000	16	T-1
6839	28.00	0.024	4000	16	T-1
7839	28.00	0.024	4000	17	T-1
7680	5.00	0.060	60000	17	T-1
7683	5.00	0.060	25000	17	T-1
8-2402	28.00	0.024	4000	17	T-1
7265	5.00	0.060	5000	17	T-1
7715	5.00	0.115	40000	17	T-1
7632	28.00	0.040	1000	17	T-1¼
7646	14.00	0.080	1000	17	T-1¼
7876	28.00	0.060	25000	17	T-1¼
7328	6.00	0.200	1000	17	T-1¼
7387	28.00	0.040	7000	17	T-1¼
7361	5.00	0.060	25000	17	T-1¼
7377	6.30	0.075	1000	17	T-1¼
7374	28.00	0.040	10000	17	T-1¼
7373	14.00	0.100	10000	17	T-1¼
7371	12.00	0.040	10000	17	T-1¼
7382	14.00	0.080	15000	17	T-1¼
7327	28.00	0.040	4000	17	T-1¼
7381	6.30	0.200	20000	17	T-1¼
10ESB	10.00	0.035	1000	18	T-2
12ESB	12.00	0.040	7500	18	T-2
16ESB	16.00	0.040	7500	18	T-2
18ESB	18.00	0.040	5000	18	T-2
24ESB	24.00	0.040	8000	18	T-2
28ESB	28.00	0.040	6000	18	T-2
48ESB	48.00	0.040	5000	18	T-2
6PSB	6.00	0.140	20000	18	T-2
12PSB	12.00	0.170	12000	18	T-2
24PSB	24.00	0.073	10000	18	T-2
28PSB	28.00	0.040	5000	18	T-2
48PSB	48.00	0.053	10000	18	T-2
60PSB	60.00	0.050	7500	18	T-2
120PSB	120.00	0.025	5000	18	T-2
1493	6.50	2.750	100	19	S-8
88	6.80	1.910	300	19	S-8
94	12.80	1.040	500	19	S-8
895	40.00	0.530	3800	19	S-8
1157	12.80	2.100	600	20	S-8

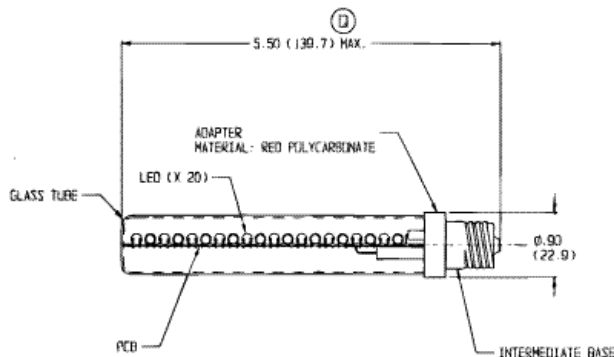


MULTIPLE LED EXIT LAMP

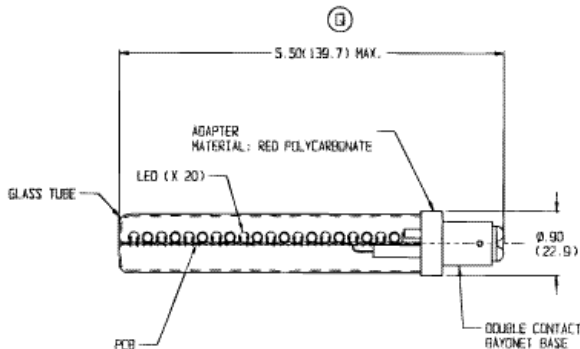
FEATURES AND BENEFITS

- Lower power consumption reduces energy costs
- Continuous uniform lighting eliminates hot spots and distortion
- Extremely long lamp life reduces the cost of annual maintenance
- Quality construction materials and procedures meet UL
- Solid state electronics minimize the detrimental defects of vibration, temperature swings and power surges
- Stock and custom lamp availability enhances design flexibility

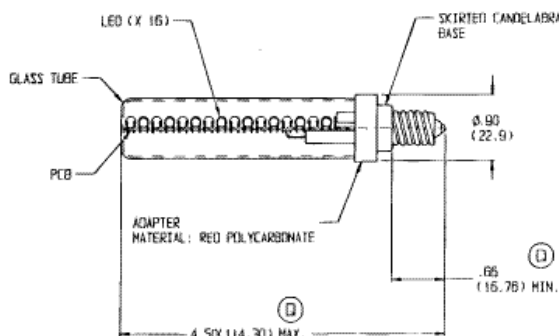
20 LED / INTERMEDIATE LAMP ASSEMBLY



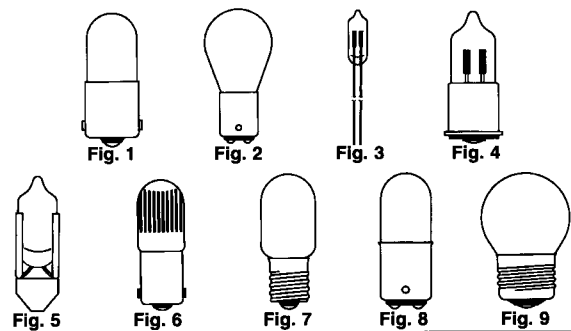
20 LED / BAYONET LAMP ASSEMBLY



16 LED / CANDELABRA LAMP ASSEMBLY

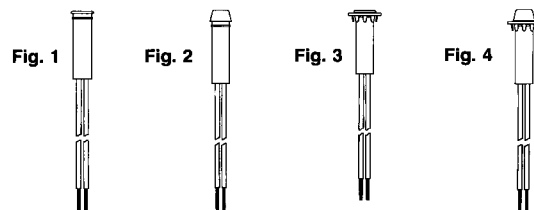


NEON LAMPS



Mfr. No.	Design Current mA (110-120V)	Recommended Series Resistor		Fig.	Lamp Size
		Ohms	Watts		
B6A (NE-21)	2.00	30K	1/4	1	T-4 1/2
B8A (NE-47)	2.00	30K	1/4	1	T-4 1/2
R1A (NE-79)	8.00	7.5K	1/4	2	S-7
2ML (NE-38S)	0.30	100K	1/4	3	T-1 1/4
A1A (NE-2)	0.70	100K	1/4	3	T-2
A1B	0.30	220K	1/4	3	T-2
A1C	1.20	47K	1/4	3	T-2
A2A	0.70	100K	1/4	3	T-2
A2B (NE-2V)	0.70	100K	1/4	3	T-2
A9A (NE-2E)	0.70	100K	1/4	3	T-2
C2A (NE-2H)	1.90	30K	1/4	3	T-2
C2A-T (NE-2HT)	1.90	30K	1/4	3	T-2
A1G	0.30	220K	1/4	4	T-1 3/4
A1H	1.20	47K	1/4	4	T-1 3/4
C7A (NE-2D)	0.70	100K	1/4	4	T-1 3/4
C9A (NE-2J)	1.90	30K	1/4	4	T-1 3/4
K1A (NE-84)	1.90	30K	1/4	5	T-2
K1B1	1.20	47K	1/4	5	T-2
K1C5	0.70	100K	1/4	5	T-2
B1A (NE-51)	0.30	220K	1/4	6	T-3 1/4
B2A (NE-51H)	1.20	47K	1/4	6	T-3 1/4
B2A-R (NE-51HR)	1.20	47K	1/4	6	T-3 1/4
B7A (NE-45)	2.00	30K	1/4	7	T-4 1/2
B5A (NE-17)	2.00	30K	1/4	8	T-4 1/2
B9A (NE-48)	2.00	30K	1/4	8	T-4 1/2
J5A (NE-30)	8.00	7.5K	1/4	9	S-11
J9A (NE-56)	5.00	39K	1/4	9	S-11

NEON GLO-LITE INDICATORS



Feature built-in C2A neon, high brightness, 25,000-hour lamp with current limiting series resistor for UL recognized, CSA certified 125 VAC operation. Wired units have 10" #22 AWG leads. Figures 1 & 2 mount 0.375" Dia. (9.53) hole, to 1.25" (31.75) panel thickness; figures 3 & 4 snap mount into 0.500" Dia. (12.70) hole, to 0.078" (1.98) panel thickness.

CML Series Indicators with Flush Transparent Lens

Mfr. No.	Fig.	Color	Description
6063-001-534R	1	Red	Flat face
6063-001-634R	2	Red	Conical face
6073-001-534R	3	Red	Flat face
6073-001-634R	4	Red	Conical face
6073-001-634W	4	White	Conical face

SUBMINIATURE SOLID-STATE INDICATOR LIGHTS



Sub-midget style with built-in bright LED; 70° viewing angle. Resistant to shock and vibration. Can be powered with low electrical energy supply or driven directly with solid-state circuitry. Operates on 1.8 to 2.8 VDC. Maximum DC current: 50 ma. Mounts in 0.193" (4.90) Dia. "D" hole in 0.188" (4.78) thick (max.) panel, on 0.344" (8.74) centers min. 6" wire leads, 105° C PVC insulation.

Mfr. No.	Color	MCD
6039-004-304G	Green	3.2
6039-004-304R	Red	2.0
6039-004-304Y	Yellow	3.2