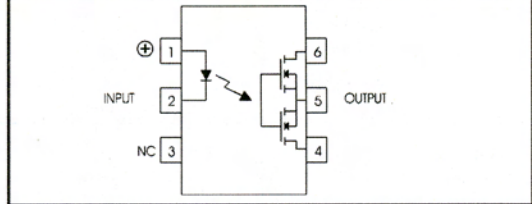


# G2 Series/ 1 FORM A Solid State Relays

Model Number					G2-1A02	G2-1A03	G2-1A05	G2-1A06	G2-1A07
Parameters	Sym.	Test Conditions	Units		1 Form A	1 Form A	1 Form A	1 Form A	1 Form A
<b>Input Characteristics</b>									
LED Forward Current - Turn on	$I_{Fon}$	$I_L = 100mA, t = 10mS$	mADC	Max	5.0	5.0	5.0	5.0	5.0
				Typ	2.0	2.0	2.0	2.0	2.0
LED Forward Current - Turn off	$I_{Foff}$	$I_L = 0.2mA, V_L = (Note 1)$	mADC	Min	0.1	0.1	0.1	0.1	0.1
				Typ	1.8	1.8	1.8	1.8	1.8
Recommended Forward Current	$I_F$		mADC	Min	10	10	10	10	10
				Max	30	30	30	30	30
LED Forward Voltage	$V_F$	$I_F = 20mA$	VDC	Min	1.1	1.1	1.1	1.1	1.1
				Max	1.4	1.4	1.4	1.4	1.4
<b>Maximum Input Ratings</b>									
LED Forward Current	$I_F$		mADC	Max	50	50	50	50	50
LED Reverse Voltage Withstand	$V_R$	$I_R = 10\mu A$	VDC	Max	10	10	10	10	10
<b>Output Characteristics</b>									
Switching Voltage	$V_L$	$I_L = 50mA$	V PEAK	Max	400	400	400	250	150
Switching Current: AC Mode (Note 2)	$I_L$	Pin 4 to pin 6	mA	Max	150	150	120	150	450
Switching Current: DC Mode (Note 2)	$I_L$	Pins 5(-) to pins 4&6 (+)	mA	Max	250	250	200	250	900
Current Limit: AC Mode (Note 2)	$I_{Lmt}$	$I_F = 5mA, t = 5mS$	mA	Typ.	380	n/a	380	380	n/a
Current Limit: DC Mode (Note 2)	$I_{Lmt}$	$I_F = 5mA, t = 5mS$	mA	Typ.	540	n/a	540	760	n/a
On Resistance: AC Mode (Note 2)	$R_{On}$	$I_F = 5mA, I_L = 50mA$	$\Omega$	Max	24	18	35	18	5
On Resistance: DC Mode (Note 2)	$R_{On}$	$I_F = 5mA, I_L = 50mA$	$\Omega$	Max	6	4.5	8.75	4.5	1.25
Off State Resistance	$R_{Off}$	$I_F = 0mA, V_L = 100V$	G $\Omega$	Min	0.5	0.5	0.5	0.5	0.5
				Typ	5000	5000	5000	5000	5000
Off State Leakage	$I_{Off}$	$I_F = 0mA, V_L = 100V$	nA	Max	200	200	200	200	200
				Typ	0.5	0.5	0.5	0.5	0.5
	$I_{Off}$	$I_F = 0mA, V_L = Max$	$\mu A$	Max	1	1	1	1	1
Turn On Time	$T_{On}$	$I_F = 5mA, I_L = 50mA$	mS	Max	5.0	5.0	5.0	5.0	5.0*
Turn Off Time	$T_{Off}$	$I_F = 5mA, I_L = 50mA$	mS	Max	1.0	1.0	1.0	1.0	1.0
Capacitance - Across Output		$I_F = 0mA, V_L = 1V$	pF	Typ	95	95	60	110	170
		$I_F = 0mA, V_L = 50V$	pF	Typ	10	10	7	15	30
Thermal Offset Voltage		$I_F = 5mA$	$\mu V$	Typ	0.2	0.2	0.2	0.2	0.2
<b>General Characteristics</b>									
Dielectric Strength - Input to Output		$t = 60sec.$	V RMS	Min	3750	3750	3750	3750	3750
Capacitance - Input to Output			pF	Typ	0.8	0.8	0.8	0.8	0.8
Power Dissipation	$P_{Diss}$		mW	Max	500	500	500	500	600

\*  $I_F = 10mA$

Schematic Top View:  
Mold mark on top of relay indicates Pin #1  
Package Drawings on Page 61



**Notes:**

- 1:  $V_L$  for LED Forward Current - Turn off is 50 Volts less than "Switching Voltage : Max"
- 2: See "AC Mode and DC Mode of Operation" on Page 67 for further description of AC and DC Mode.
- 3: Specifications subject to change without notice

**Environmental Ratings**

Storage Temp: -40°C to +150°C  
 Operating Temp: -40°C to +85°C  
 Solder Temp: 240°C max. for 10 seconds  
 All electrical parameters specified at 25°C  
 Vibration: 20G's to 2000Hz  
 Shock: 50G's