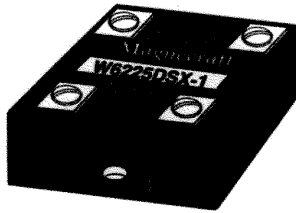


DC CONTROLLED SOLID STATE RELAY

CLASS
6

7



CLASS 6
 DC CONTROLLED INPUT
 AC SCR OUTPUT
 SOLID STATE RELAYS
 HIGH RELIABILITY TYPE
 3-32 VDC INPUT
 50/60 Hz AC OUTPUT



RATING APPROVALS FOR 240 VAC MODELS ONLY.
 480 VAC APPROVALS PENDING.

High Transient Capability—Single output features back to back SCR's an internal mounted RC (snubber) network for high dv/dt applications.

Photo-Isolated, Zero Switching—Optically coupled for 4000 VAC isolation between input and output and RFI suppression.

OUTPUT TERMINALS = 1 & 2
 INPUT TERMINALS = 3 (+), 4 (-)

RELAYS

Magnecraft PART NUMBERS	W6102	W6110	W6125	W6140	W6202	W6210	W6225	W6240
	DSX-1	DSX-1	DSX-1	DSX-1	DSX-1	DSX-1	DSX-1	DSX-1
INPUT CHARACTERISTICS								
Input Voltage Range (over operating temperature range)	3 to 32 Volts DC							
Maximum Pickup Voltage (over operating temperature range)	3 Volts DC							
Minimum Dropout Voltage (over operating temperature range)	1 Volts DC							
Input Impedance	1500 ohms minimum							
Reverse Polarity Protected	Yes							
Input Filtered for transients less than one millisecond.	Yes							
Response Time	1/2 Cycle Max.							
OUTPUT CHARACTERISTICS								
Nominal Off State Voltage V_D (RMS)	400				600			
Maximum Off State Voltage $V_{D\text{ MAX}}$ (RMS)	140				280			
Minimum Off State Voltage $V_{D\text{ MIN}}$ (RMS)	20				40			
Non-Repetitive Peak Voltage V_{DSM} (Blocking Voltage)	300				500			
Maximum Rate of Rise of Off State Voltage dv/dt	200	500 Volts per microsec.				500 Volts per microsec.		
Rated Load Current I_T (RMS)*	2.5	10.0	25.0	40	2.5	10.0	25.0	40
U/L Incandescent Lamp Ampere Rating	2.0	8.0	16.0	30	2.0	8.0	16.0	30
U/L Motor Load Ampere Rating	1.0	4.5	8	14	1.0	4.5	8	14
Minimum Load Current $I_{T\text{ MIN}}$ (RMS) to maintain "On"	50 mA.							
Non-Repetitive Surge Current $I_{T\text{ SM}}$ (one Cycle Surge)	22.5	120	250	625	22.5	120	250	625
Maximum RMS Overload current for 1 second	5	24	40	80	5	24	40	80
Maximum Off State Leakage current I_D (RMS)	8 mA				10 mA			
Maximum RMS On-State Voltage V_T (RMS) Maximum Voltage drop across relay output @ rated current	3.5	1.6	1.6	1.6	3.5	1.6	1.6	1.6
MISCELLANEOUS CHARACTERISTICS								
Max I^2T For Fusing (8-3ms) $A^2\text{ sec}$	2.1	60	260	1620	2.1	60	260	1620
Thermal Resistance Junction To Case (T_J , Max.= 115°C) °c/w	8.5	1.78	1.02	0.63	8.5	1.78	1.02	0.63
Suggested Heat Sink	16-790 or 16-793							
Dielectric Strength V_{ISO} (Input-Output Isolation)	4,000 VAC							
Insulation Resistance R_{ISO} @ 500VDC	$10^{10}\ \Omega$							
Operating temperature Range	-30°C to +80°C							
Storage temperature Range	-40°C to +120°C							
Weight	4 oz. (113.4 g)							

*All current ratings are based on use of suitable thermally conductive compound (e.g. silicone grease between the SSR mounting base and mounting surface of suitable heat sink).