

PART NUMBER RELAY DESCRIPTION

605-1	DC SSR with controlled rise time for 150 W lamp loads
605-2	DC SSR with controlled rise time for up to 450 W lamp loads

ELECTRICAL SPECIFICATIONS

(-55 °C to 85 °C UNLESS OTHERWISE SPECIFIED)

INPUT (CONTROL) SPECIFICATIONS

Parameter (see note 1)	Min	Max	Units
Input Voltage Range	- 6	34	Vdc
Input Current @ $V_I = 28$ Vdc	13	17	mAdc
Must Turn-On Voltage	16		Vdc
Must Turn-Off Voltage		1.0	Vdc
Reverse Voltage Protection		-6	Vdc

OUTPUT (LOAD) SPECIFICATION

Parameter	Min	Max	Units
Operating Voltage		34	Vdc
Transient Voltage @ $I_{leakage} = 1$ mA max		80	Vdc
Rated Load Current (See Figure 5)		16	Adc
On Resistance		0.022	Ohm
Leakage Current @ $V_I = 28$ Vdc		100	μ Adc
Turn-On Delay Time		2.0	ms
Turn-On Rise Time	150	250	ms
Turn-Off Time		2.0	ms
In-Rush-Current Limiting		350	%
Capacitance (Input to Output) at 1 MHz, $T_A = 25^\circ$ C		30	pF
Dielectric Withstanding Voltage (Input to Output)	1000		Vac
Insulation Resistance	10^8		Ohms
Voltage Drop @ $I_{load} = 16$ Adc		0.35	Vdc
Thermal Resistance, Junction to Heatsink		1	$^\circ$ C/W
Thermal Resistance, Junction to Ambient		18	$^\circ$ C/W

FEATURES/BENEFITS

- Controlled Turn-On Rise Time - Excellent for lamp loads and aircraft lighting systems. Enhances lamp life and reduces noise
- Optical Isolation - Isolates control circuits from load transients. Eliminates ground loops and signal level ground noise
- Free Floating Output - Allows for high and low side switching.
- Switches High Currents - To 16 Adc
- High Dielectric Strength - For safety and protection of signal level circuits
- Broad Operating Temperature Range - Meets industrial and military temperature requirements

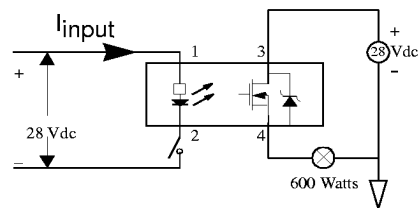
DESCRIPTION

This new optically isolated solid state relay features controlled turn-on time to limit high in-rush currents such as those encountered with lamp load applications.

The output of the relay automatically compensates for load power rating and limits the peak in-rush current to 350% of steady state current.

The power FET output of this device is designed for MIL-STD-704A 28 Vdc power systems.

WIRING CONFIGURATION



SPECIFICATIONS ARE SUBJECT TO CHANGE WITHOUT NOTICE.

Figure 1

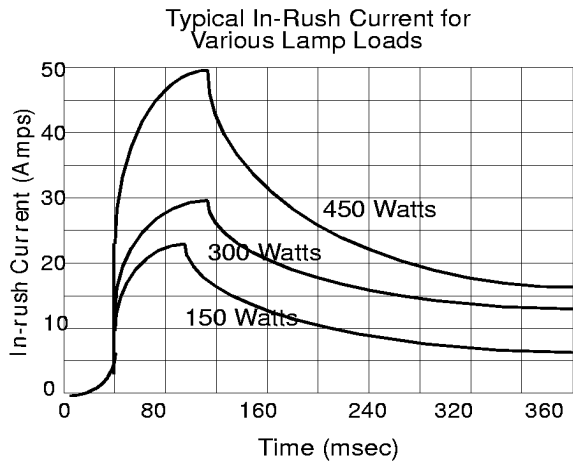


Figure 2

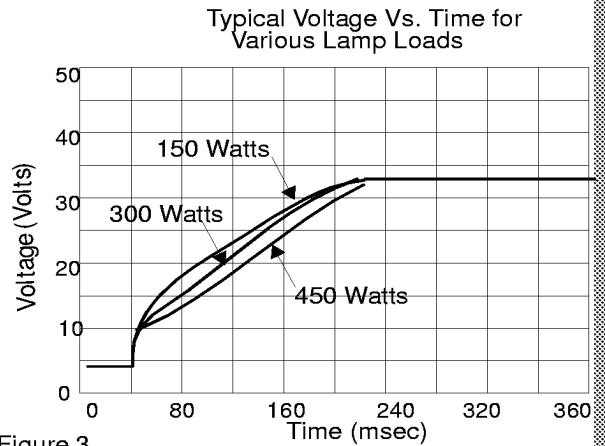
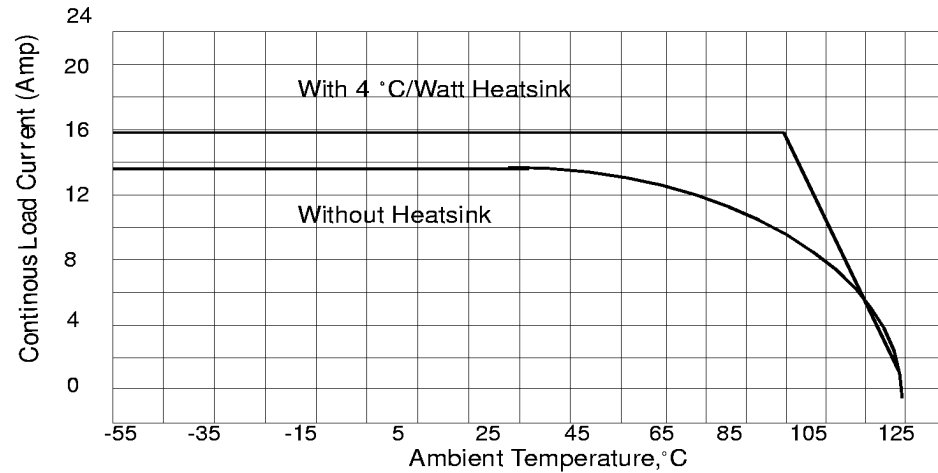
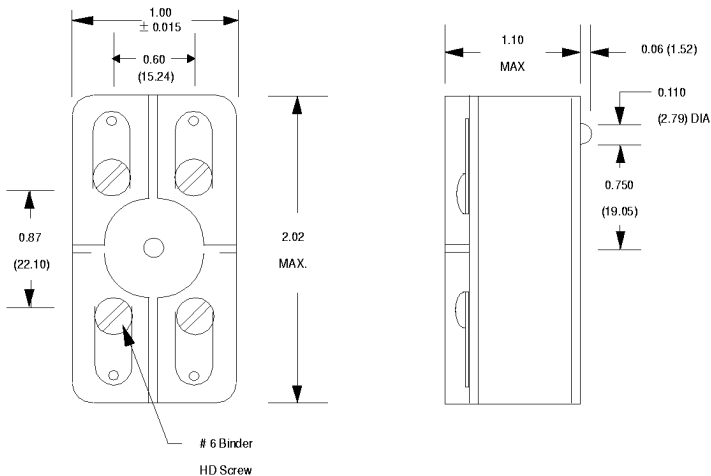


Figure 3
Derating Curve



PRELIMINARY MECHANICAL SPECIFICATIONS



DIMENSIONS ARE IN INCHES (MILLIMETERS)
Tolerances ± 0.015 (0.38) unless specified.

NOTES:

- Unless otherwise specified, the following conditions shall be applied in the conformance testing:
 - Input Voltage = 28 Vdc for on-state and 0 Vdc for the off-state
 - Output load voltage = Vdc
 - Output load current = 16 Adc
 - Output load type = resistive
- The input transitions shall be less than 1.0 msec in duration
- Inductive loads must be diode suppressed
- Load condition shall be tested at 90% duty cycle at 0.01 Hz (period= 100 sec)