

CHARACTERISTIC CURVES

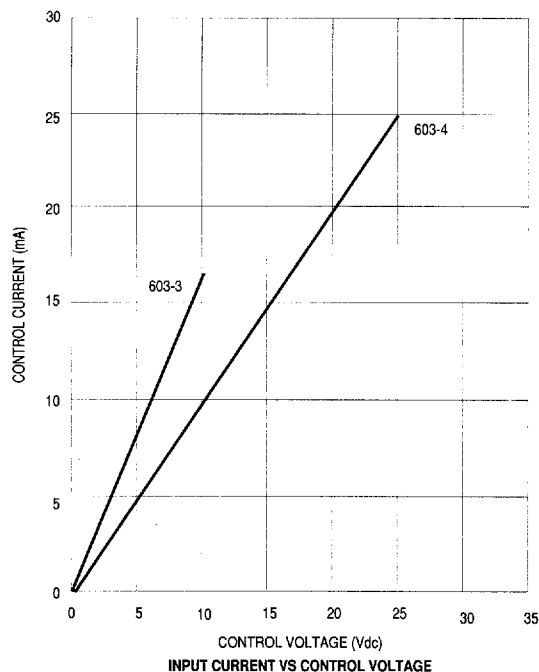


FIGURE 1

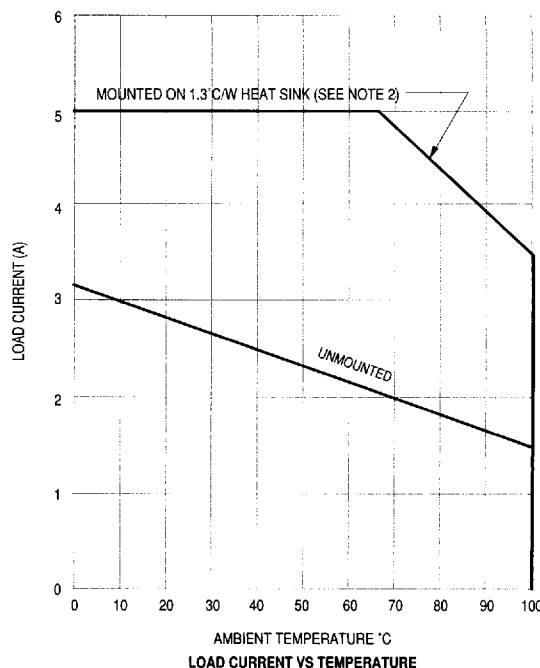
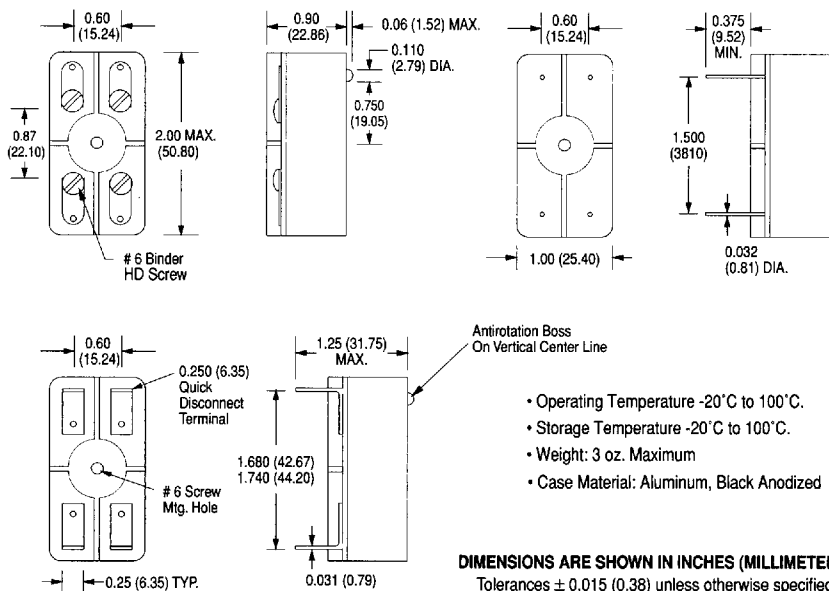


FIGURE 2

MECHANICAL SPECIFICATIONS



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

NOTES:

1. The basic part number provides for screw terminals only. To order PC mounting pins add suffix "P" to part number. For quick disconnect terminals add suffix "Q" to part number.
2. Relays mounted on heat sink with silicon grease.
3. Rise and fall times of input signal must be less than 1 ms or damage to output stage may result.

TIMING RESPONSE

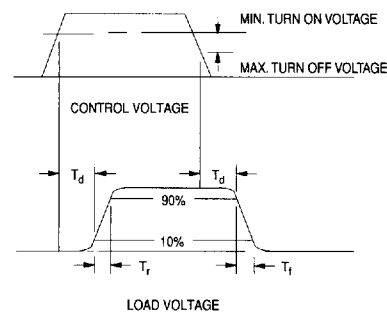
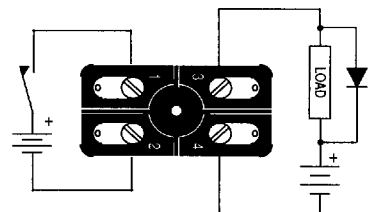


FIGURE 3

WIRING DIAGRAM



* Input and output polarity must be observed.
Inductive loads must be diode suppressed

High Voltage DC Solid State Relay

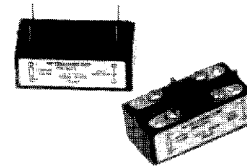
TELEDYNE RELAYS

603 Series

TRANSFORMER ISOLATED 5 A/250 Vdc

Part* Numbers	Input Control Voltage Range	Output Voltage Rating	Output (Load) Current Rating
603-3	4-10 Vdc	250 Vdc	5 Adc
603-4	10-32 Vdc		

*See Note 1



ELECTRICAL SPECIFICATIONS

(25°C UNLESS OTHERWISE SPECIFIED)

INPUT (CONTROL) SPECIFICATIONS

Parameter	Part Number	Min	Max	Units
Control Voltage Range (-20°C to 100°C, See Note 3)	603-3	4	10	Vdc
	603-4	10	32	
Input Current (-20°C to 100°C, See Figure 1)	603-3	@5 Vdc	16	mA
	603-4	@28 Vdc	35	
Must Turn-On Voltage	603-3	4		Vdc
	603-4	10		
Must Turn-Off Voltage			0.4	Vdc

OUTPUT (LOAD) SPECIFICATIONS

Parameter	Part Number	Min	Max	Units
Load Voltage Rating			250	Vdc
Output Current Rating (See Figure 2)			5	A
On Resistance			0.4	Ohms
Output Leakage Current	25°C		20	μA
	100°C		100	
Turn-On Time			120	μs
Turn-Off Time (See Figure 3)			150	μs
Isolation (Input to Output, Input to Case, Output to Case)		10 ⁹		Ohms
Dielectric Strength (Input to Output, Input to Case, Output to Case)		1500		Vac
Capacitance (Input to Output)			15	pF
Junction Temperature (T _J)			150	°C
Thermal Resistance (θ _{JA}) (See Figure 2)			30	°C/W
Thermal Resistance (θ _{JC})			10	

FEATURES/BENEFITS

- Fast Switching Speed - Where speed is important
- Floating Output - Eliminates ground loops and signal level ground noise.
- Low Off State Leakage Current - High off state impedance
- Switches High & Low Voltages and Currents - Voltages to 250 Vdc. Currents to 5 A
- High Dielectric Strength - For safety and protection of signal level circuits.
- Broad Operating Temperature Range - -20°C to +100°C. Near Mil-Spec operating range in an Industrial Relay

DESCRIPTION

These DC solid state relays were designed specifically for high voltage loads up to 5A at 250 Vdc. They utilize a Teledyne transformer coupled driver/isolator to provide high input/output isolation and low off-state leakage. The adaptive package design offers a choice of screw or quick disconnect terminals for chassis, panel, or heat sink mounting, and solder pins for direct mounting on PC boards.

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