

INCH-POUND

MIL-PRF-28750/8C
1 February 1999

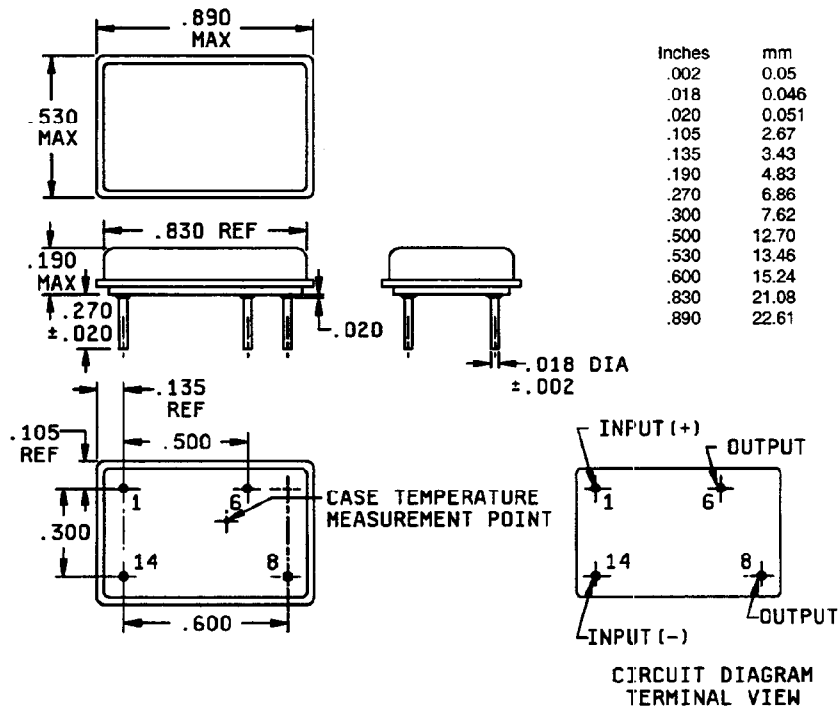
SUPERSEDING
MIL-R-28750/8B(EC)
24 February 1988

PERFORMANCE SPECIFICATION SHEET

RELAY, SOLID-STATE, HERMETICALLY SEALED, CLASS II, OPTICALLY ISOLATED,
600 mA, 50 V dc, SIGNAL SWITCHING, SPST(N.O.)

This specification is approved for use by all Departments and
Agencies of the Department of Defense.

The requirements for acquiring the relay described herein shall
consist of this specification and MIL-PRF-28750.



NOTES:

1. Dimensions are in inches.
2. Metric equivalents are given for general information only.
3. Unless otherwise specified, tolerance is ±.010 (0.25 mm).
4. Terminal numbers shown above are for reference only.

FIGURE 1. Outline drawing and dimensions.

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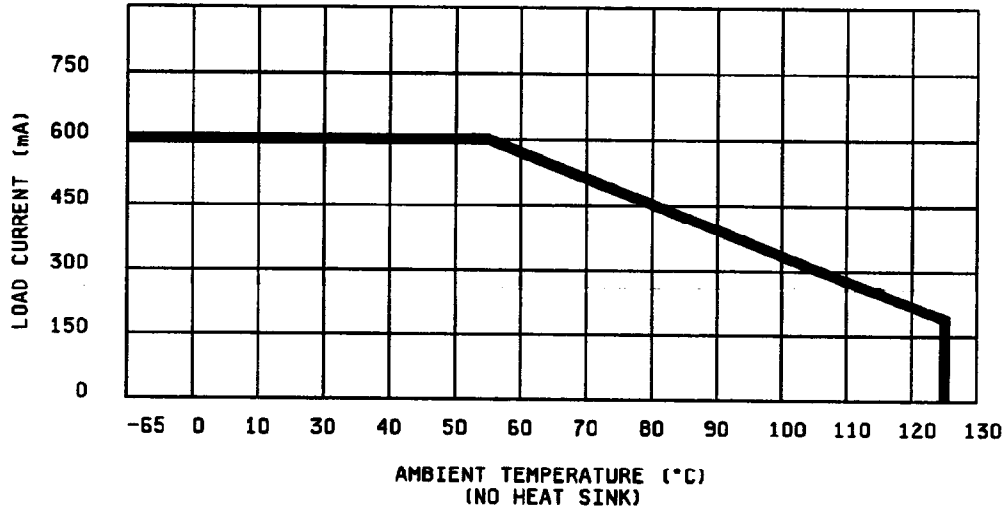


FIGURE 2. Maximum load current vs. ambient temperature.

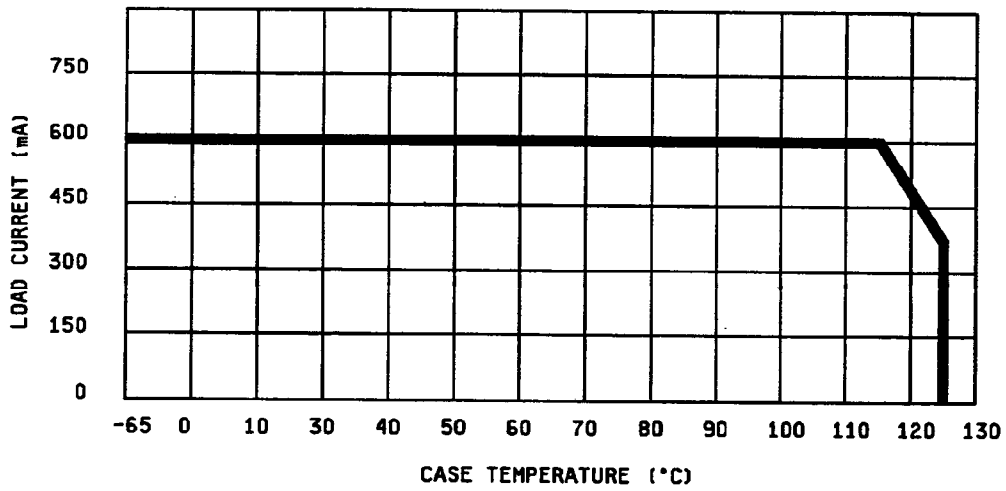


FIGURE 3. Maximum load current vs. case temperature.

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REQUIREMENTS:

MECHANICAL REQUIREMENTS:

Weight: 6 grams (0.21 ounce) maximum.

Seal: Hermetic.

Dimensions and configurations: See figure 1.

Terminals:

Terminal strength: 1 pound pull.

Terminal solderability: Applicable.

Terminal Finish: Corrosion resistant material. Corrosion resistant material such as gold plating are considered acceptable.

INPUT REQUIREMENTS:

Input voltage range: 3.0 V dc to 16.0 V dc.

Assured turn-on voltage: 3.0 V dc minimum.

Assured turn-off voltage: 1.0 V dc maximum.

Input current: 18 mA dc maximum.

Turn-on time: 50 microseconds maximum.

Turn-off time: 150 microseconds maximum.

Bias voltage: Not applicable.

OUTPUT REQUIREMENTS: (At +25°C unless otherwise specified.)

Rated output current: See figure 2 and figure 3.

Rated output voltage: 50 V dc maximum.

Output voltage drop: 1.4 V dc maximum.

Output leakage current: 60 microamperes maximum.

Minimum current: Not applicable.

Crosstalk: Not applicable.

Transient voltage: Not applicable.

Electric system spike: Not applicable.

Overload: Not applicable.

DC offset voltage: Not applicable.

Waveform distortion: Not applicable.

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ELECTRICAL REQUIREMENTS:

Dielectric withstanding voltage: 1,000 V ac rms, 60 Hz.

Insulation resistance: 100 megohms minimum.

Isolation: 5 picofarads maximum.

Power dissipation: 1.14 watts maximum.

Exponential rate of voltage rise (dv/dt): Not applicable.

ENVIRONMENTAL REQUIREMENTS:

Temperature:

Operating: -65°C to +125°C.

Storage: -65°C to +155°C.

Shock (specified pulse): MIL-STD-202, method 213, test condition G (100 g's).

Moisture resistance: Not applicable.

Vibration: MIL-STD-883, method 2007, test condition B (50 g's) except frequency shall be 10 Hz to 3,000 Hz.

Acceleration: 5,000 g's, Y1 axis, MIL-STD-883, method 2001, test condition A.

Resistance to soldering heat: Applicable.

Salt spray (corrosion): In accordance with MIL-STD-750, method 1041.

Marking: Marking shall include, as a minimum, the following information:

Part number.

Functional diagram and terminal identification.

Date code.

Manufacturer's name or source code.

Marginal notations are not used in this revision to identify changes with respect to the previous issue due to the extensiveness of the changes.

Custodians:

Navy - EC

Air Force - 85

Review activities:

Navy - OS

Air Force - 19

Preparing activity:

DLA - CC

(Project 5945-1033)