



SSRA series

2A Miniature, SIP Solid State Relay With Paired SCR Output

File E29244

Users should thoroughly review the technical data before selecting a product part number. It is recommended that users also seek out the pertinent approvals files of the agencies/laboratories and review them to confirm the product meets the requirements for a given application.

Features

- Miniature SIP package permits high density population of PC board.
- 2A rms inverse-parallel connected SCR output.
- 4-10 VDC input control.
- Zero voltage and random voltage turn-on versions.
- 2500V rms optical isolation.

Engineering Data

Form: 1 Form A (SPST-NO).

Duty: Continuous.

Isolation: 2500V rms input-to-output-to-ground.

Insulation Resistance: 10^9 Ohms, minimum, at 500VDC.

Capacitance: 8.0 pF maximum (input to output).

Temperature Range:

Storage: -30°C to $+125^{\circ}\text{C}$

Operating: -30°C to $+80^{\circ}\text{C}$

Case Material: Thermally conductive epoxy encapsulation.

Case and Mounting: Refer to outline dimension drawing.

Termination: Printed circuit terminals. Refer to outline dimension drawing.

Approximate Weight: .15 oz. (4.3g).

Ordering Information

Sample Part Number ▶

SSRA -240 D 2 R

1. Basic Series: SSRA = Miniature SIP Solid State Relay

2. Line Voltage: 240 = 24 - 280 VAC

3. Input Type & Voltage: D = 4 - 10VDC

4. Maximum Switching Rating/Output: 2 = 2.0A rms

5. Options: Blank = Zero voltage turn-on
R = Random voltage turn-on

Our authorized distributors are more likely to maintain the following items in stock for immediate delivery.

SSRA-240D2
SSRA-240D2R

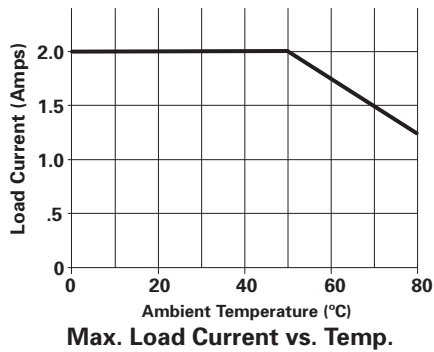
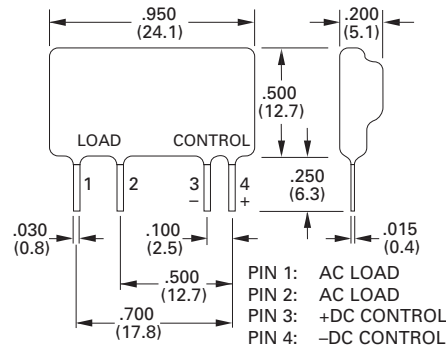
Input Specifications

Parameter	Conditions	Units	Zero V or Random V Turn-on Units
Control Voltage Range V_{IN}	@ 25°C	VDC	4-10
Must Operate Voltage $V_{IN(OP)}$ (Min.)	@ 25°C	VDC	4
Must Release Voltage $V_{IN(REL)}$ (Min.)	@ 25°C	VDC	1
Input Current @ 5 VDC (Typ.)	@ 25°C	mA DC	15
Input Impedance (Nom.)	@ 25°C	ohms	300

Output Specifications (@ 25° C, unless otherwise specified)

Parameter	Conditions	Units	
Load Voltage Range V_L	$f = 47 - 63 \text{ Hz.}$	V rms	12 - 280
Repetitive Blocking Voltage (Min.)		V peak	± 600
Load Current Range I_L^*		A rms	.06 - 2.0
Single Cycle Surge Current (Min.)		A peak	120
Leakage Current (Off-State) (Max.)	$f = 60 \text{ Hz. } V_L = 280\text{Vrms}$	mA rms	0.1
On-State Voltage Drop (Max.)	$I_L = \text{Max.}$	V peak	1.5
Static dv/dt (Off-State) (Min.)	$V_L = \text{Max.}$	V/ μs	500
Turn-On Time (Max.)	$f = 60 \text{ Hz.}$	ms	8.3 for Zero Voltage Turn-On Models 0.1 for Random Voltage Turn-On Models
Turn-Off Time (Max.)	$f = 60 \text{ Hz.}$	ms	8.3
Load Power Factor Rating (Min.)	$I_L = \text{Max.}$		0.5

*See Thermal Derating Curves.

Electrical Characteristics (Thermal Derating Curve)

Outline Dimensions

Disclaimer

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The dimensions in this catalog are for reference purposes only and are subject to change without notice. Specifications are subject to change without notice. Consult Tyco Electronics for the latest dimensions and design specifications.