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°C
Operating: –30°C to + 80°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

Product code structure Typical product code	**SSRA**	**-240**	**D**	**2**	**R**

Basic Series
SSRA Miniature SIP Solid State Relay

Line Voltage
240 24 - 280 VAC

Input Type & Voltage
D 4 - 10 VDC

Maximum Switching Rating / Output
2 2.0A rms

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

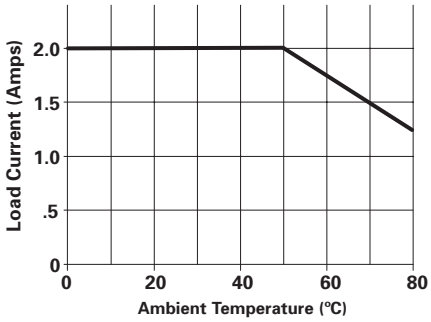
Parameter	Conditions	Units	Zero V or Random V Turn-on Units
Control Voltage Range V_{IN}	@ 25°C	VDC	4-10
Must Operate Voltage $V_{IN(OP)}$ (Min.)	@ 25°C	VDC	4
Must Release Voltage $V_{IN(REL)}$ (Min.)	@ 25°C	VDC	1
Input Current @ 5 VDC (Typ.)	@ 25°C	mA DC	15
Input Impedance (Nom.)	@ 25°C	ohms	300

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

Parameter	Conditions	Units	
Load Voltage Range V_L	f = 47 - 63 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 Hz. V_L = 280Vrms	mA rms	0.1
On-State Voltage Drop (Max.)	I_L = Max.	V peak	1.5
Static dv/dt (Off-State) (Min.)	V_L = Max.	V/µs	500
Turn-On Time (Max.)	f = 60 Hz.	ms	8.3 for Zero Voltage Turn-On Models 0.1 for Random Voltage Turn-On Models
Turn-Off Time (Max.)	f = 60 Hz.	ms	8.3
Load Power Factor Rating (Min.)	I_L = Max.		0.5

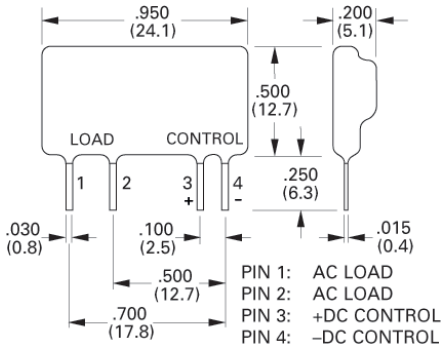
*see Thermal Derating Curves

Electrical Characteristics (Thermal Derating Curve)



Max. Load Current vs. Temp.

Outline Dimensions



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