

**SSRA Series**

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



UL 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<sup>9</sup> 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**

Typical Part Number	SSRA	-240	D	2	R
<b>1. Basic Series:</b> SSRA = Miniature SIP Solid State Relay					
<b>2. Line Voltage:</b> 240 = 24 - 280 VAC					
<b>3. Input Type &amp; Voltage:</b> D = 4 - 10 VDC					
<b>4. Maximum Switching Rating/Output:</b> 2 = 2.0A rms					
<b>5. Options:</b> 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 <sub>IN</sub>	@ 25°C	VDC	4-10
Must Operate Voltage V <sub>IN(OP)</sub> (Min.)	@ 25°C	VDC	4
Must Release Voltage V <sub>IN(REL)</sub> (Min.)	@ 25°C	VDC	1
Input Current @ 5 VDC (Typ.)	@ 25°C	mA DC	15
Input Impedance (Nom.)	@ 25°C	ohms	300

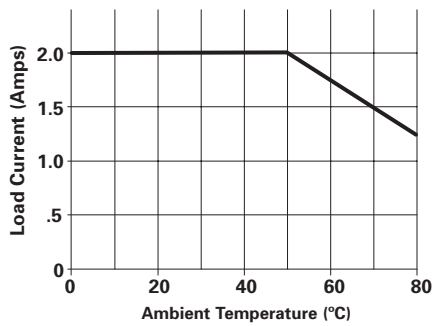
**SSRA Series** (Continued)

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

Parameter	Conditions	Units	240V Output Units, Zero V or random V Turn-on Units
Load Voltage Range $V_L$	$f = 47 - 63 \text{ Hz.}$	V rms	12 - 280
Repetitive Blocking Voltage (Min.)		V peak	$\pm 600$
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/ $\mu\text{s}$	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 Curves)**



**Max. Load Current vs. Temp.**

**Outline Dimensions**

