

SSRC Series

**5A SIP Solid State Relay
With Paired SCR Output**



US File E81606

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

- SIP package permits high density population of PC board.
- 5A rms inverse-parallel connected SCR output.
- Choice of 240 or 480VAC nominal output.
- 3-15 / 4-15VDC input control.
- Zero voltage and random voltage turn-on versions.
- 4000V rms optical isolation.
- Pinout compatible with OAC or OACM series output modules.

Engineering Data

- Form:** 1 Form A (SPST-NO).
- Duty:** Continuous.
- Isolation:** 4000V rms input-to-output-to-ground.
- Insulation Resistance:** 10⁹ Ohms, minimum, at 500VDC.
- Capacitance:** 10.0 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:** .04 oz. (11g).

Ordering Information

	Typical Part Number	SSRC	-240	D	5	R
1. Basic Series:	SSRC = Miniature SIP Solid State Relay					
2. Line Voltage:	240 = 24 - 280 VAC 480 = 48 - 660 VAC (Motor Controller – 480Vac, General Use -660Vac)					
3. Input Type & Voltage:	D = 3 - 15VDC (240V output types) or 4 - 15VDC (480V output types)					
4. Maximum Switching Rating/Output:	5 = 5.0A 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.

SSRC-240D5 SSRC-480D5
SSRC-240D5R SSRC-480D5R

Input Specifications

Parameter	Conditions	Units	240V Output, Zero or Random V Turn-on	480V Output Units, Zero or Random V Turn-on
Control Voltage Range V _{IN}	@ 25°C	VDC	3 -15	4 -15
Must Operate Voltage V _{IN(OP)} (Min.)	@ 25°C	VDC	3.0	4.0
Must Release Voltage V _{IN(REL)} (Min.)	@ 25°C	VDC	1.0	1.0
Input Current @ 5 VDC (Typ.)	@ 25°C	mA DC	15	15
Input Impedance (Nom.)	@ 25°C	ohms	300	240

SSRC Series (Continued)

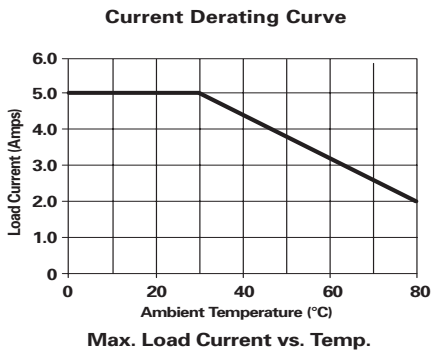
Output Specifications (@ 25° C, unless otherwise specified)

Parameter	Conditions	Units	240V Nom. Output Units	480V Nom. Output Units
Load Voltage Range V_L	$f = 47 - 63 \text{ Hz.}$	V rms	12 - 280	48 - 660*
Repetitive Blocking Voltage (Min.)		V peak	± 600	± 600
Load Current Range I_L *		A rms	.06 - 5.0	.06 - 5.0
Single Cycle Surge Current (Min.)		A peak	250	250
Leakage Current (Off-State) (Max.)	$f = 60 \text{ Hz. } V_L = 280\text{Vrms}$	mA rms	0.1	0.1
On-State Voltage Drop (Max.)	$I_L = \text{Max.}$	V peak	1.4	1.4
Static dv/dt (Off-State) (Min.)	$V_L = \text{Max.}$	V/ μs	500	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	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	8.3
I ² t Rating	$t = 8.3 \text{ ms}$	A Sec. ²	260	260
Load Power Factor Rating (Min.)	$I_L = \text{Max.}$		0.5	0.5

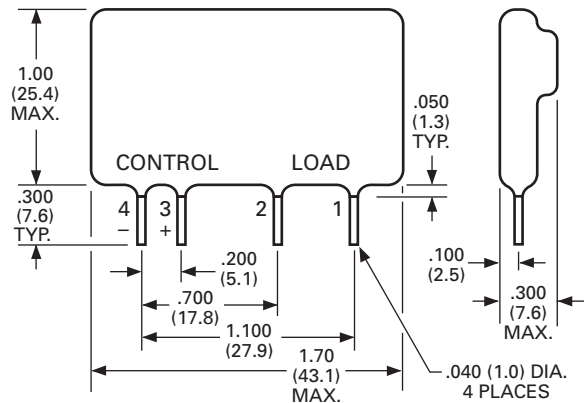
*see Thermal Derating Curves

*Motor Controller – 480Vac, General Use -660Vac

Electrical Characteristics (Thermal Derating Curves)



Outline Dimensions



PIN ASSIGNMENTS:

- PIN 1: AC LOAD
- PIN 2: AC LOAD
- PIN 3: +DC INPUT
- PIN 4: -DC INPUT

Product Code	Part Number
SSRC-240D5	5-1393030-8
SSRC-240D5R	6-1393030-0
SSRC-480D5	5-1393030-9
SSRC-480D5R	6-1393030-1

To view the Solid-State relay application notes click [here](#)