



SSRF series

25A SIP Solid State Relay With Paired SCR Output, Integral Heatsink

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

- Heatsink is integrated into package.
- 25A 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.
- 4,000V rms optical isolation.
- Pinout compatible with OAC or OACM series output modules.

Engineering Data

Form: 1 Form A (SPST-NO).

Duty: Continuous.

Isolation: 4,000V rms input-to-output-to-ground.

Insulation Resistance: 10⁹ 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: 0.85 oz. (25.0g).

Ordering Information

Sample Part Number ▶

SSRF -240 D 25 R

1. Basic Series: SSRF = SIP Solid State Relay with Integral Heatsink

2. Line Voltage: 240 = 12 - 280 VAC
480 = 48 - 660 VAC

3. Input Type & Voltage: D = 3 - 15VDC (240V output types) or 4 - 15VDC (480V output types)

4. Maximum Switching Rating/Output: 25 = 25.0A rms (with forced air cooling)

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.

SSRF-240D25 SSRF-480D25
SSRF-240D25R SSRF-480D25R

Input Specifications

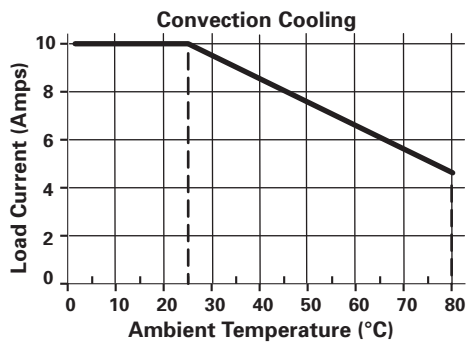
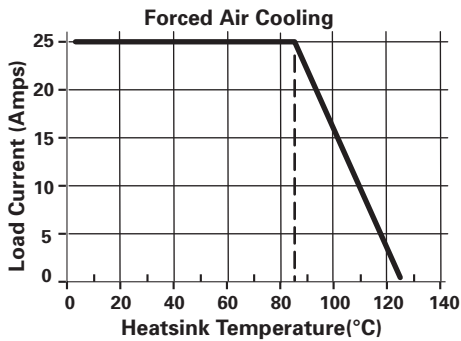
| Parameter | Conditions | Units | 240V Output, Zero or Random V Turn-on | 480V Output Units, Zero or Random V Turn-on |
|---|------------|-------|---------------------------------------|---|
| Control Voltage Range V_{IN} | @ 25°C | VDC | 3-15 | 4-15 |
| Must Operate Voltage $V_{IN(OP)}$ (Min.) | @ 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 |

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

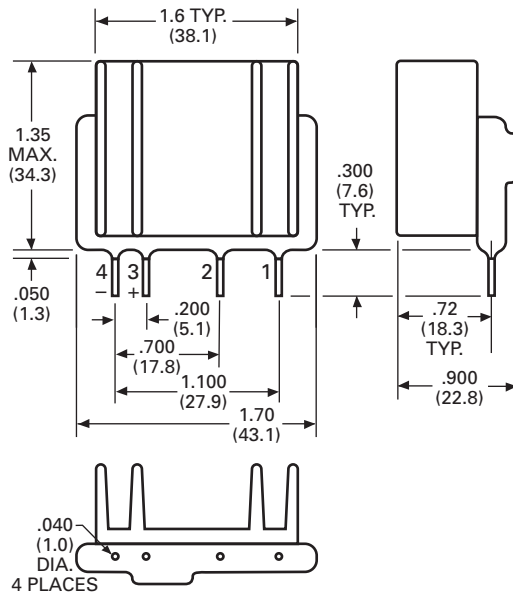
| Parameter | Conditions | Units | 240V Nom. Output Units | 480V Nom. Output Units |
|------------------------------------|-------------------------------|---------------------|--|--|
| Load Voltage Range V_L | $f = 47-63$ Hz. | V rms | 12-280 | 48-660 |
| Repetitive Blocking Voltage (Min.) | | V peak | ± 600 | ± 1200 |
| Load Current Range I_L^* | Max. Heatsink Temp. 85°C | A rms | .06-25.0 (Forced Air Cooling) .06-10.0 (Convection Cooling) | .06-25.0 (Forced Air Cooling) .06-10.0 (Convection Cooling) |
| Single Cycle Surge Current (Min.) | | A peak | 250 | 250 |
| Leakage Current (Off-State) (Max.) | $f = 60$ Hz, $V_L = 280$ Vrms | mA rms | 0.1 | 0.1 |
| On-State Voltage Drop (Max.) | $I_L = \text{Max.}$ | V peak | 1.6 | 1.6 |
| Static dv/dt (Off-State) (Min.) | $V_L = \text{Max.}$ | V/ μ s | 500 | 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 | 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 | 8.3 |
| $I^2 t$ Rating | $t = 8.3$ ms | A ² Sec. | 260 | 260 |
| Load Power Factor Rating (Min.) | $I_L = \text{Max.}$ | | 0.5 | 0.5 |

*See Thermal Derating Curves.

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

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.



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- Подбор аналогов;
- Консультации по применению компонента;
- Поставка образцов и прототипов;
- Техническая поддержка проекта;
- Защита от снятия компонента с производства.



Как с нами связаться

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