

SSRT-240D25 Product Details



SSRT-240D25

TE Internal Number: 2-1393030-2

 Active

Solid State Relays

 [Converted to EU RoHS/ELV Compliant \(Statement of Compliance\)](#)

Product Highlights:

- Relay
- Relay Type = Solid State - Snubberless Triac Output
- SSRT Series
- Switch Arrangement = 1 Form A (SPST-NO)
- Current Rating = 25 A

Documentation & Additional Information

Product Drawings:

- None Available

Catalog Pages/Data Sheets:

- [SSRT Hockey Puck Solid State Relay With Snubberless ... \(PDF, English\)](#)

Product Specifications:

- None Available

Application Specifications:

- None Available

Instruction Sheets:

- None Available

CAD Files:

- None Available

Additional Information:

- [Product Line Information](#)

Additional Product Images:

- [Line Drawing](#)
- [Wiring Diagram](#)

Related Products:

- [Tooling](#)

Product Features (Please use the Product Drawing for all design activity)

Product Type Features:

- Product Type = Relay
- Relay Type = Solid State - Snubberless Triac Output
- [Series](#) = SSRT
- Termination Type = Screws

Mechanical Attachment:

- Mounting Options = Chassis Mount

Electrical Characteristics:

- Current Rating (A) = 25
- Input Voltage (VDC) = 3 - 32
- Output Type = AC
- Output Voltage, Max. (V) = 240
- Output Current, Min. (A) = 0.05

Dimensions:

- Approx. Dimensions (L x W x H) (mm [in]) = 44.40 x 57.20 x 22.00 [1.749 x 2.253 x .866]

Contact Features:

- Switch Arrangement = 1 Form A (SPST-NO)
- Output Switching = Zero
- Coupling = Optical

Housing Features:

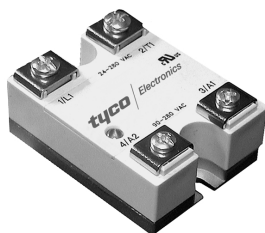
- Housing Style = Hockey Puck

Industry Standards:

- [RoHS/ELV Compliance](#) = RoHS compliant, ELV compliant
- [Lead Free Solder Processes](#) = Not relevant for lead free process
- RoHS/ELV Compliance History = Converted to comply with RoHS directive
- Approved Standards = UL Recognized, UL Recognized for Canada

Other:

- Brand = Potter & Brumfield



SSRT series

“Hockey Puck” Solid State Relay With Snubberless Triac Output

us 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 ensure the product meets the requirements for a given application.

Features

- Standard “hockey puck” package.
- Enhanced noise immunity (designed to meet level 3 requirements of European EMC Directive).
- LED indicator.
- Floating terminal design.
- Low cost snubberless triac outputs.
- 10A & 25A rms versions.
- AC & DC input versions.
- 4000V rms isolation.

Engineering Data

Form: 1 Form A (SPST-NO).

Duty: Continuous.

Isolation: 4000V rms minimum, input - output.

Capacitance: 8.0 pf typical (input to output).

Temperature Range:

Storage: -40°C to +100°C

Operating Temperature: -20°C to + 80°C

Case Material: Plastic, UL rated 94V-0.

Case and Mounting: Refer to outline dimension.

Termination: Refer to outline dimension.

Approximate Weight: 3.5 oz. (98g).

Ordering Information

Sample Part Number ►

SSRT -240 D 10

1. Basic Series: SSRT = “hockey puck” triac output solid state relay

2. Line Voltage: 240 = 24 - 280 VAC

3. Input Type & Voltage: A = 90 - 280 VAC linear
D = 3 - 32 VDC constant current

4. Maximum Switching Rating: 10 = .1 - 10A rms, mounted to heatsink
25 = .1 - 25A rms, mounted to heatsink

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

SSRT-240A10 SSRT-240D10
SSRT-240A25 SSRT-240D25

Input Specifications

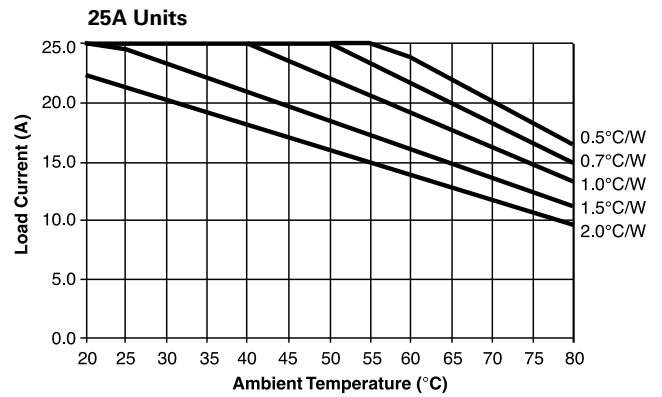
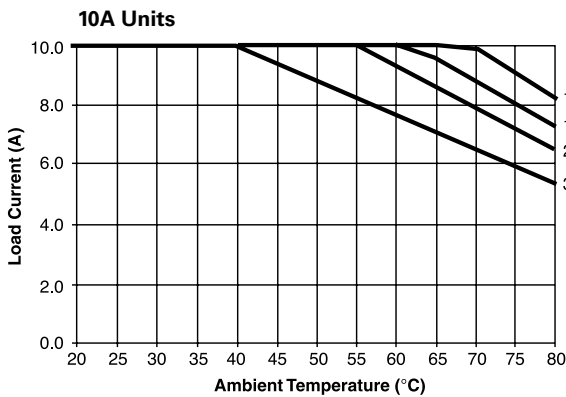
Parameter	AC Input/AC Output	DC Input/AC Output
Control Voltage Range V_{IN}	90 - 280VAC	3 - 32VDC
Must Operate Voltage $V_{IN(OPS)}$ (Max.)	90VAC	3VDC
Must Release Voltage $V_{IN(REL)}$ (Min.)	10VAC	1VDC
Input Current (Max.)	8.5mA	14mA

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

Parameter	Conditions	Units	SSRT-240A10 & SSRT-240D10	SSRT-240A25 & SSRT-240D25
Load Voltage Range V_L		V rms	24 - 280	
Repetitive Blocking Voltage (Min.)		V peak	±600	
Load Current Range I_L^*	Resistive	A rms	.1 - 10	.1 - 25
Single Cycle Surge Current (Min.)		A peak	100	250
Leakage Current (Off-State) (Max.)	f = 60 Hz. V_L = Nom. (120 or 240 V rms)	mA rms	.1	
On-State Voltage Drop (Max.)	I_L = Max.	V peak	1.5	1.3
Static dv/dt (Off-State) (Min.)		V/μs	500	
Thermal Resistance, Junction to Case ($R_{\theta(j-c)}$) (Max.)		°C/W	2.2	1.7
Turn-On Time (Max.)	f = 60 Hz.	ms	8.3 for DC input types, 20 for AC input types	
Turn-Off Time (Max.)	f = 60 Hz.	ms	8.3 for DC input types, 30 for AC input types	
$I^2 t$ Rating	t = 8.3 ms	A ² Sec.	41	240
Load Power Factor Rating	I_L = Max.		0.5 - 1.0	

*See Derating Curves

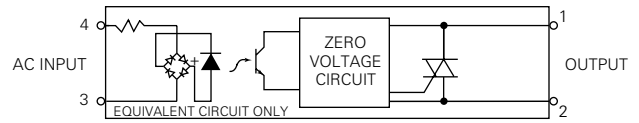
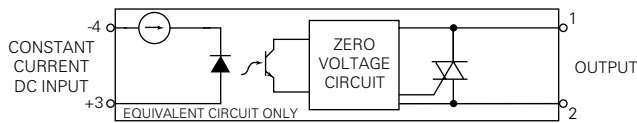
Electrical Characteristics (Thermal Derating Curves)



Heatsink Recommendations

- We recommend that solid state relay modules be mounted to a heatsink sufficient to maintain the module's base temperature at less than 85°C under worst case ambient temperature and load conditions.
- The heatsink mounting surface should be a smooth (30-40 micro-inch finish), flat (30-40 micro-inch flatness across mating area), un-painted surface which is clean and free of oxidation.
- An even coating of thermal compound (Dow Corning DC340 or equivalent) should be applied to both the heatsink and module mounting surfaces and spread to a uniform depth of .002" to eliminate all air pockets.
- The module should be mounted to the heatsink using two#10 screws.

Operating Diagrams



Outline Dimensions

