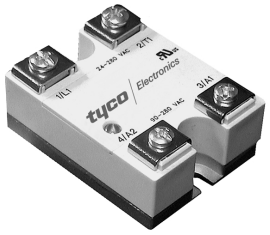


SSRT series

"Hockey Puck" Solid State Relay With Snubberless Triac Output

c UL 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 $V_{IN(OP)}$ (Max.)	90VAC	3VDC
Must Release Voltage $V_{IN(REL)}$ (Min.)	10VAC	1VDC
Input Current (Max.)	8.5mA	14mA

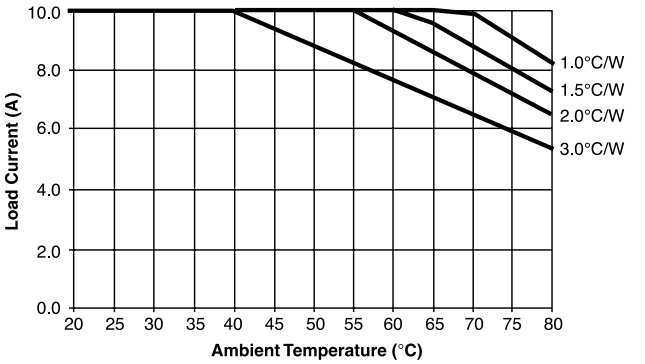
Output Specification (@ 25°C, unless otherwise specified)

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 ($R_{\theta j\text{-}c}$) (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^2t Rating	t = 8.3 ms	A^2 Sec.	41	240
Load Power Factor Rating	I_L = Max.		0.5 - 1.0	

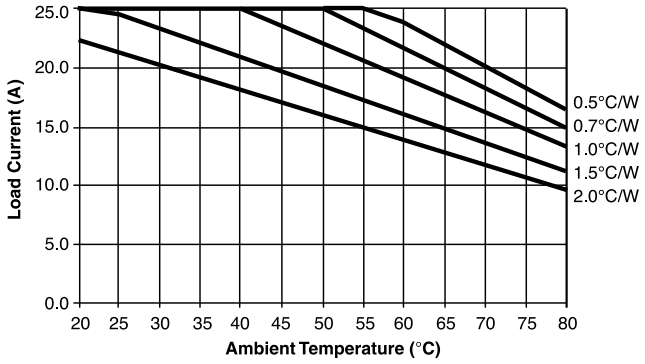
*See Derating Curves

Electrical Characteristics (Thermal Derating Curves)

10A Units



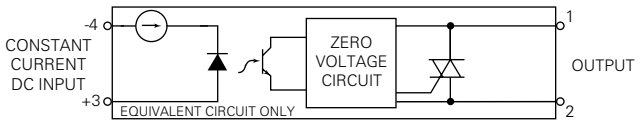
25A Units

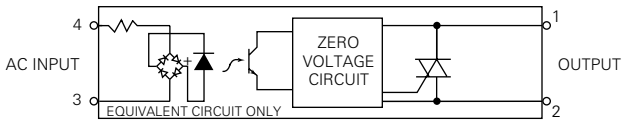


Heatsink Recommendations

- 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