SSRT Series

"Hockey Puck" Solid State Relay

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.
- LED indicator.
- Floating terminal design.
- Triac outputs.
- 10A & 25A rms versions.
- AC & DC input versions.
- 4000V rms isolation.
- Cover design with anti-rotation barrier

Engineering Data

Form: 1 Form A (SPST-NO).
Duty: Continuous.
Isolation: 4000V rms minimum, input - output.
Temperature Range:
Storage: –30°C to +100°C
Operating Temperature: –30°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

Typical 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	DC Input
Control Voltage Range V_{IN}	90 - 280VAC	3 - 32VDC
Must Operate Voltage $V_{IN(OP)}$ (Min.)	90VAC	3VDC
Must release Voltage $V_{IN(REL)}$ (Min.)	10VAC	1VDC
Input Current (Max.)	25mA	20mA

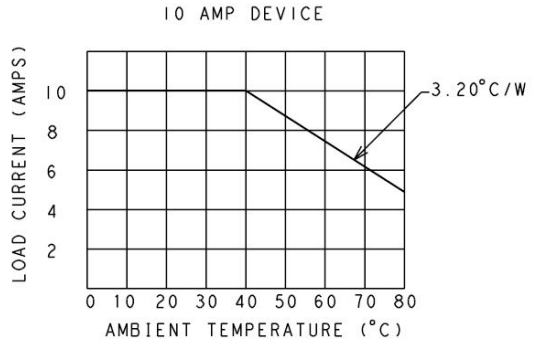
SSRT Series (Continued)

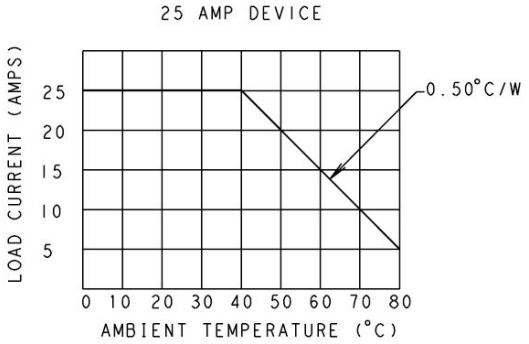
Output Specification (@ 25°C, unless otherwise specified)

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	260
Leakage Current (Off-State) (Max.)	f = 60 Hz. V_L = Nom (120 or 240 V rms)	mA rms	5	
On-State Voltage Drop (@rated current)	I_L = Max.	V rms	1.6	1.6
Static dv/dt (Off-State) ((Min.)		V/µs	400	500
Thermal Reisitance, Junction to Case ($R_{\theta J-C}$) (Max.)		°C/W	2.4	1.7
Turn-On Time (Max.)	f = 60 / 50 Hz.	ms	8.3/10 of DC input types, 40 for AC input types	
Turn-Off Time (Max.)	f = 60 / 50 Hz.	ms	8.3/10 of DC input types, 80 for AC input types	
I^2T Rating	t = 8.3 ms	A^2 Sec.	144	340
Load Power Factor Rating	I_L = Max.		0.5 - 1.0	

* See Derating curve

Electrical Characteristics (Thermal Derating Curves)

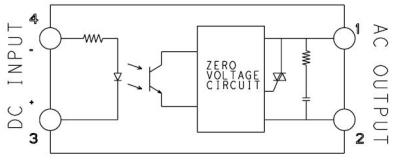


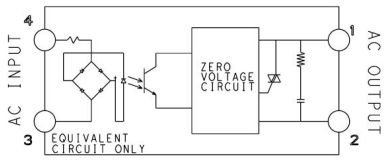


Heatsink Recommendations

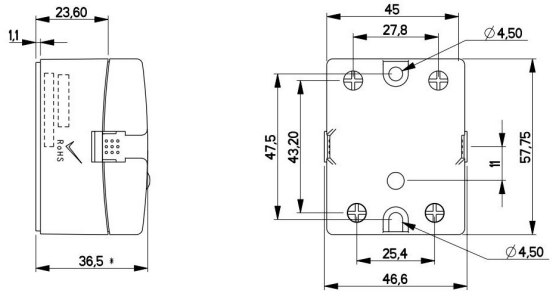
- We recommend that solid state relay modules be mounted to a heatsink sufficient to maintain the module's base temperature at less than 85°C under worst case ambient temperature and load conditions.
- The heatsink mounting surface should be a smooth (30-40 micro-inch finish), flat (30-40 micro-inch 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 #8 screws.

Operating Diagrams





Outline Dimensions



* OVERALL HEIGHT DIMENSION INCLUDES WITH CLEAR COVER
DIMENSION IN mm