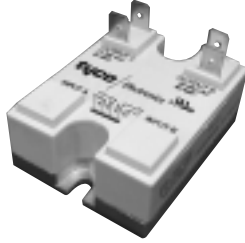


SSRD series

Dual AC Output “Hockey Puck”
Solid State Relay With
Paired SCR Outputs

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

Features

- Two independent AC output solid state relays in one standard package.
- Enhanced noise immunity (designed to meet level 3 requirements of European EMC Directive).
- Inverse parallel SCR outputs.
- 25A rms & 40A rms versions available.
- Choose from 4-15 VDC or 17-32 VDC input control.
- Zero voltage and random voltage turn-on versions.
- 4000V rms optical isolation.
- Quick connect style terminals.

Engineering Data

Form: 2 Form A (2 SPST-NO).**Duty:** Continuous.**Isolation:** 4000V rms input-to-output;
2500V rms input or output to ground.**Capacitance:** 8.0 pf typical (input to output).**Temperature Range:****Storage:** -40°C to +100°C**Operating:** -40°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 ►

SSRD -240 D 25

1. Basic Series: SSRD = Dual output SSR - 2 SPST - NO**2. Line Voltage:** 240 = 24-280 VAC**3. Input Type & Voltage:** D = 4-15 VDC
DE = 17-32 VDC**4. Maximum Switching Rating/Output:** 25 = .1-25A rms @ 25°C, mounted to heatsink
40 = .1-40A rms @ 25°C, mounted to heatsink**5. Options:** Blank = Zero voltage turn-on (both outputs)
R = Random voltage turn-on (both outputs)**Our authorized distributors are more likely to maintain the following items in stock for immediate delivery.**

SSRD-240D25

SSRD-240D40

Input Specifications

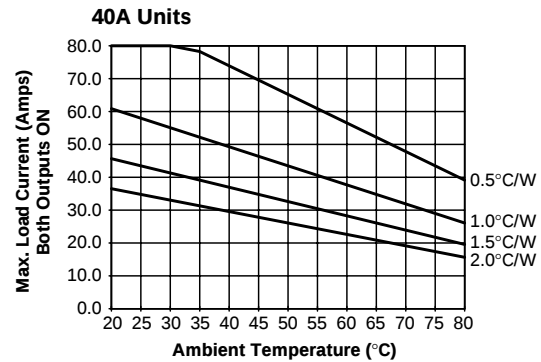
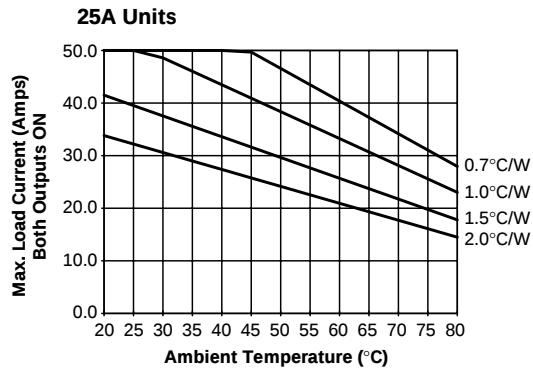
Parameter	Units	Zero V Turn-on and Random V Turn-on Units	
Control Voltage Range V_{IN}	VDC	4-15	17-32
Must Operate Voltage $V_{(INOPI)}$ (Min.)	VDC	3.75	17
Must Release Voltage $V_{(INREL)}$ (Min.)	VDC	1	1
Input Current (Max.)	mA DC	34	24
Input Current (Min. for On-State)	mA DC	7.5	13
Input Resistance	Ohms	500	1,500

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

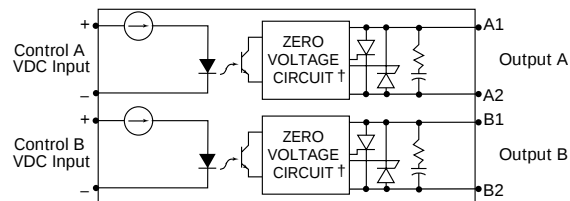
Parameter	Conditions	Units	25A Models	40A Models
Load Voltage Range V_L	$f = 47 - 63 \text{ Hz.}$	V rms	24-280	
Peak Voltage (Min.)	$t = 1 \text{ Min.}$	V peak	550	
Load Current Range I_L^*	Resistive	A rms	0.1-25	0.1-40
Single Cycle Surge Current (Max.)		A peak	500	780
One Second Surge Current (Max.)		A peak	150	234
Leakage Current (Off-State) (Max.)	$V_L = 280 \text{V rms}$	mA rms	0.1	
On-State Voltage Drop (Max.)	$I_L = \text{Max.}$	V peak	1.4	1.3
Static dv/dt (Off-State) (Min.)		V/ μs	500	
Thermal Resistance, Junction to Baseplate ($R_{\theta JB}$) (Max.)	Both Sections On	°C/W	0.6	0.6
Turn-On Time (Max.)	$f = 60 \text{ Hz.}$	ms	8.33 for Zero Voltage Turn-On Models <0.1 for Random Voltage Turn-On Models	
Turn-Off Time (Max.)	$f = 60 \text{ Hz.}$	ms	8.33	
I^2t Rating	$t = 8.3 \text{ ms}$	A ² Sec.	1,041	2,435
Load Power Factor Rating	$I_L = \text{Max.}$		0.5 - 1.0	

*See Derating Curves

Electrical Characteristics (Thermal Derating Curves)



Operating Diagram

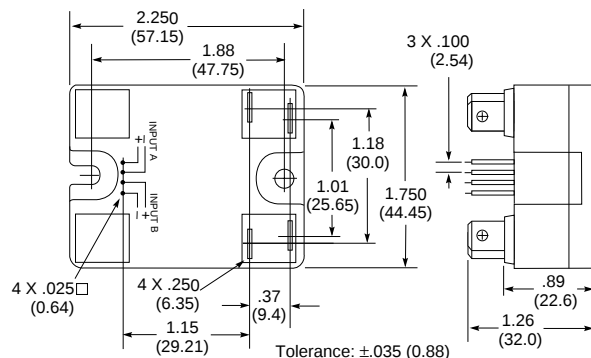


† Random Turn-on Units have a Random Turn-on circuit instead of Zero Voltage Circuit

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.

Outline Dimensions



Dimensions are shown for reference purposes only.

Dimensions are in inches over (millimeters) unless otherwise specified.

Specifications and availability subject to change.

Input Terminal Connectors are available from several different manufacturers.

AMP P/N: 103976-3 or 640440-4
Methode P/N: 1300-004-422

Consult your local distributor for these or equivalent connectors.

www.tycoelectronics.com
Technical support:
Refer to inside back cover.