

# SSRMP SERIES

## POTTER & BRUMFIELD “MINI PUCK” SOLID STATE RELAY

TE Connectivity (TE's) Potter & Brumfield Solid-state relay (SSR) minipuck, SSRMP is a compact sized panel mountable type product series. It handles various load options ranging from 10Amp to 25Amp @ 240/480Vac.

### FEATURES

- Standard “mini puck” package
- LED indicator
- Triac outputs
- 10A, 16A & 25A rms versions
- DC input version
- 240 & 480 Vac Line voltage
- 4000V rms isolation
- Quick connect style terminals
- Panel mountable

### APPLICATIONS

- Industrial control
- Automation
- Robot
- Lighting
- HVAC
- Commercial appliances
- injection machine
- Packaging machine



### APPROVALS

- UL : File E29244
- CE & UK CA : N84\_00006



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

# POTTER & BRUMFIELD

## “Mini Puck” Solid State Relay

### ENGINEERING DATA

Form	1 Form A (SPST-NO)
Duty	Continuous
Isolation	4000V <sub>rms</sub> minimum, input - output
Temperature Range	
Storage	-30°C to +100°C
Operating Temperature	-30°C to + 80°C
Case Material	Plastic, UL rated 94V-1
Case and Mounting	Refer to outline dimension
Termination	Refer to outline dimension
Approximate Weight	0.65 oz. (18.3g).

### INPUT SPECIFICATIONS

Parameter	Units	DC INPUT
Control Voltage Range VIN	VDC	4 - 32
Must Operate Voltage VIN(OP) (Min.)	VDC	4
Must release Voltage VIN(REL) (Min.)	VDC	1
Input Current (Max.)	mA	1 - 20

### OUTPUT SPECIFICATION (@ 25°C, UNLESS OTHERWISE SPECIFIED)

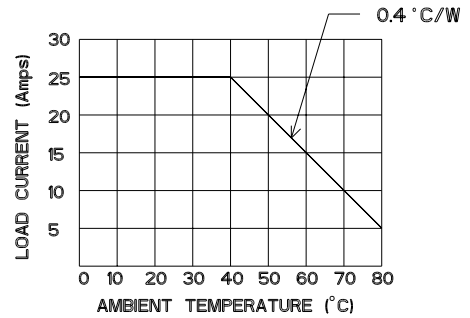
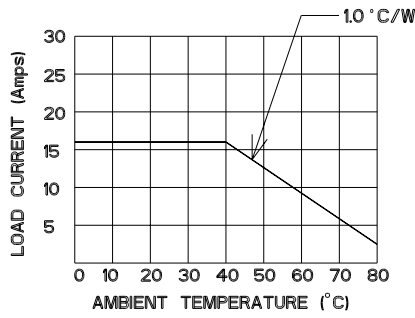
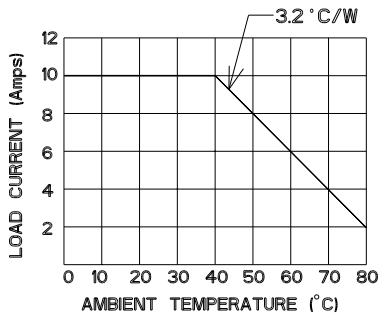
Parameter	Nom. Line Voltage	Conditions	Units	10A Models	16A Models	25A Models	
Load Voltage Range V <sub>L</sub>	240		V <sub>rms</sub>	24-280			
	480		V <sub>rms</sub>	48-480			
Load Current Range I <sub>L</sub> *			A	10	16	25	
Single Cycle Surge Current	240 & 480	Resistive	A	100	160	208	
Leakage Current (Off-State) (@rated voltage)			mA	5			
On-State Voltage Drop (@rated current)		f=60Hz. V <sub>L</sub> =Nom	V <sub>rms</sub>	1.6			
Static dv/dt (Off-State) (Min.)		IL = Max.	V/μs	400		475	
Repetitive Peak Off-State Voltage		240		V <sub>rms</sub>	600		
	480			800			
I <sup>2</sup> T Rating	240 & 480		A <sup>2</sup> Sec	55	144	259	
Zero Turn-On Voltage			V <sub>pk</sub>	15			
Thermal Resistance, Junction to case (R <sub>0j-c</sub> ) (Max.)			°C/W	2.4	2.1	2	
Turn -On Time (Max.)		f= 60/ 50 Hz.	ms	10 for Zero Voltage Turn-On			
				0.1 for Random Voltage Turn-On			
Turn -Off Time (Max.)	10 for Zero Voltage Turn-On						
	8.3/10 for Random Voltage Turn-On						

\* See Derating curve

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## “Mini Puck” Solid State Relay

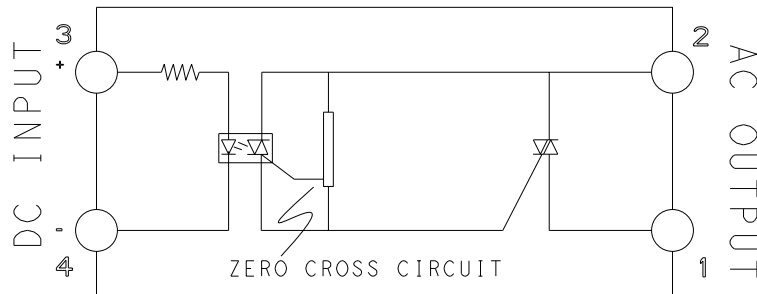
### ELECTRICAL CHARACTERISTICS (THERMAL DERATING CURVES)



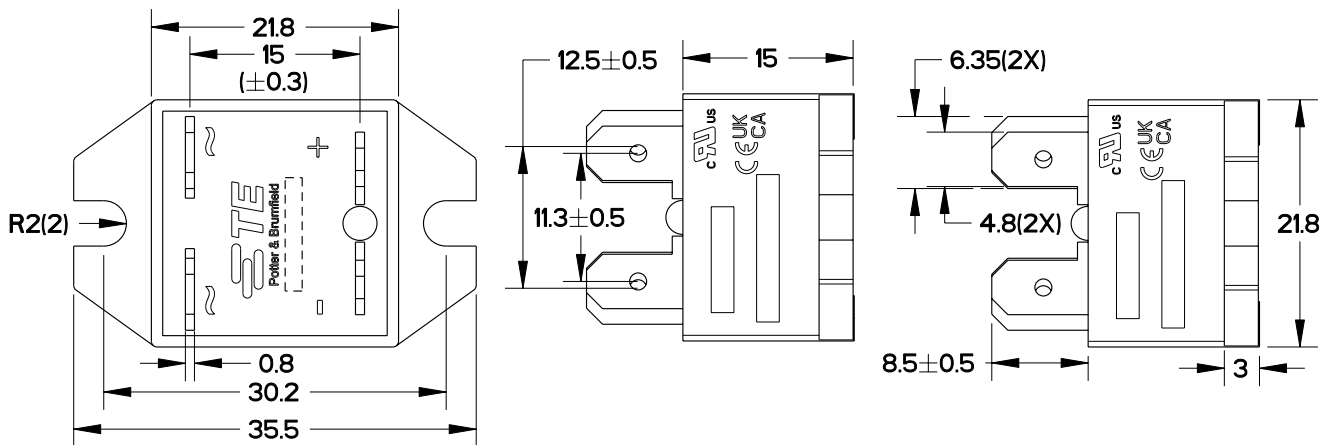
### HEATSINK RECOMMENDATIONS

- We recommend that solid state relay modules be mounted to a heatsink sufficient to maintain the module's base temperature at 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.

### OPERATING DIAGRAMS



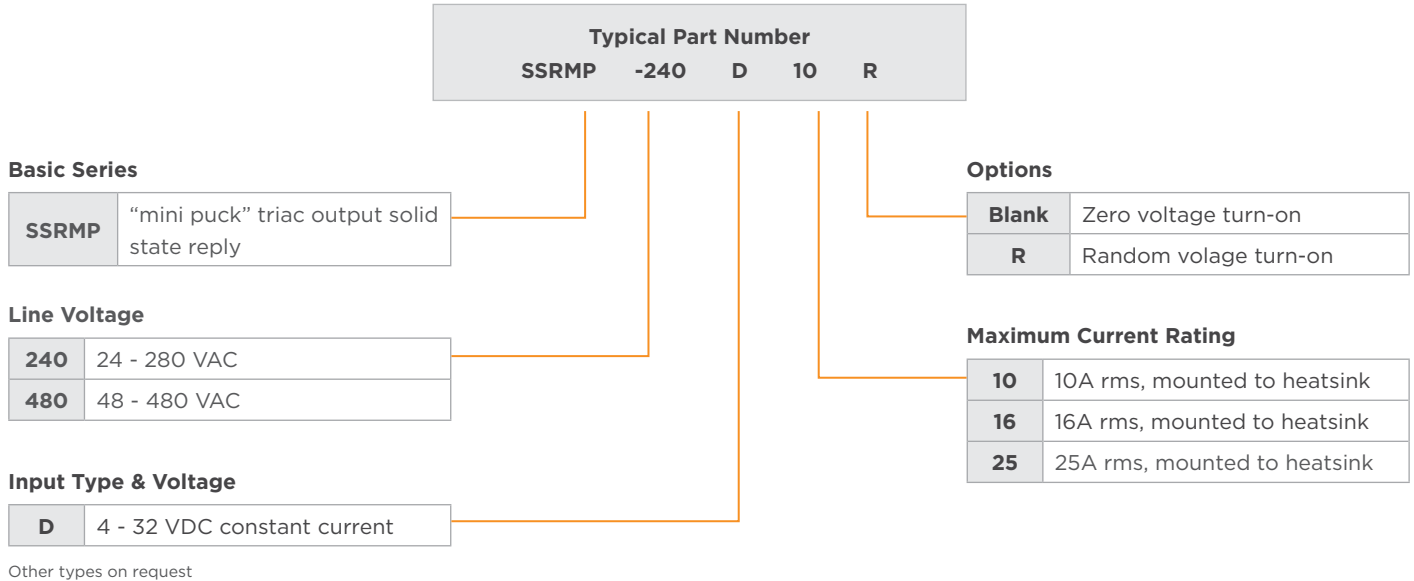
### OUTLINE DIMENSIONS



**Note:**

- All dimensions are in mm

## ORDERING INFORMATION



## PART NUMBER LIST

TE Part Number	Product Code	TE Part Number	Product Code
2323802-1	SSRMP-240D25	2323802-9	SSRMP-240D10R
2323802-2	SSRMP-240D16	2323802-8	SSRMP-240D16R
2323802-3	SSRMP-240D10	2323802-7	SSRMP-240D25R
2323802-4	SSRMP-480D25	1-2323802-3	SSRMP-480D10R
2323802-5	SSRMP-480D16	1-2323802-2	SSRMP-480D16R
2323802-6	SSRMP-480D10	1-2323802-1	SSRMP-480D25R

**OUR AUTHORIZED DISTRIBUTORS ARE MORE LIKELY TO MAINTAIN THE FOLLOWING ITEMS IN STOCK FOR IMMEDIATE DELIVERY.**

Product code	
SSRMP-240D10	SSRMP-480D10
SSRMP-240D10R	SSRMP-480D10R
SSRMP-240D25	SSRMP-480D25
SSRMP-240D25R	SSRMP-480D25R

### Notes:

1. Catalog and product specification according to IEC 61810-1 and to be used only together with the 'Definitions' section.
2. Catalog and product data is subject to the terms of the disclaimer and all chapters of the 'Definitions' section, available at <http://relays.te.com/definitions>
3. Catalog product data, 'Definitions' section, application notes and all specifications are subject to change.
4. To view solid-state relay application notes [click here](#)

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