SSRMP Series

"Mini 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 "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.

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-1.
Case and Mounting: Refer to outline dimension.
Termination: Refer to outline dimension.
Approximate Weight: 0.65 oz. (18.3g).

Ordering Information

Typical Part Number	SSRMP	-240	D	10	R
1. Basic Series: SSRMP = "mini puck" triac output solid state reply					
2. Line Voltage: 240 = 24 - 280 VAC 480 = 48 - 480 VAC					
3. Input Type & Voltage: D = 4 - 32 VDC constant current					
4. Maximum Switchin Rating: 10 = 10A rms, mounted to heatsink 16 = 16A rms, mounted to heatsink 25 = 25A rms, mounted to heatsink					
5. Options: Blank = Zero voltage turn-on **R** = Random volage turn-on					

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

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

Input Specifications

Parameter	Units	DC Input
Control Voltage Range V_{IN}	VDC	4 - 32
Must Operate Voltage $V_{IN(OP)}$ (Min.)	VDC	4
Must release Voltage $V_{IN(REL)}$ (Min.)	VDC	1
Input Current (Max.)	mA	1 - 20

05-2020, Rev. 0520
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Datasheets and product specification according to IEC 61810-1 and to be used only together with the 'Definitions' section.

Datasheets 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

Datasheets, product data, 'Definitions' section, application notes and all specifications are subject to change.

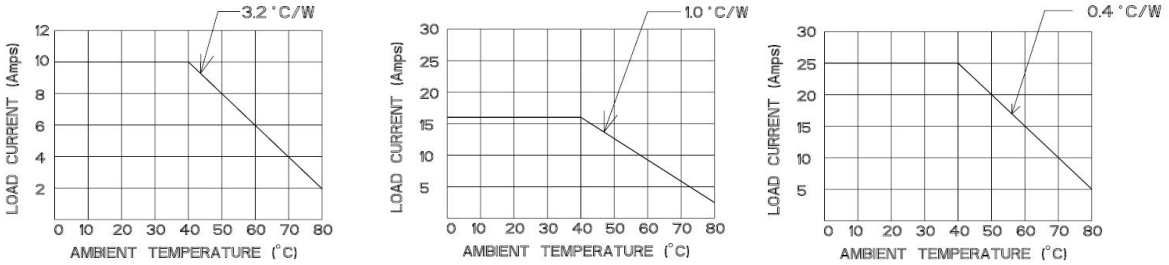
SSRMP Series (Continued)

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

Parameter	Nom. Line Voltage	Conditions	Units	10A Models	16A Models	25A Models
Load Voltage Range V_L	240		Vrms	24-280		
	480		Vrms	48-480		
Load Current Range I_L*	240 & 480	Resistive	A	10	16	25
Single Cycle Surge Current			A	100	160	208
Leakage Current (Off-State) (@rated voltage)		f=60Hz. V_L =Nom	mA	5		
On-State Voltage Drop (@rated current)		I_L = Max.	Vrms	1.6		
Static dv/dt (Off-State) (Min.)			V/µs	400		475
Repetitive Peak Off-State Voltage	240		Vrms	600		
	480			800		
I^2T Rating	240 & 480		A^2Sec	55	144	259
Zero Turn-On Voltage			Vpk	15		
Thermal Resistance, Junction to case (R_{0J-C}) (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

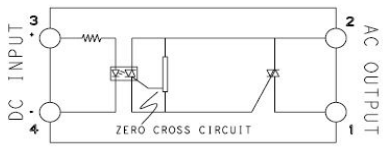
Electrical Characteristics (Thermal Derating Curves)



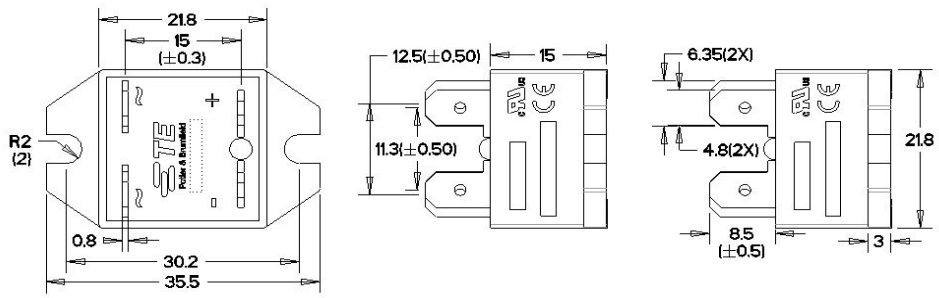
Heatsink Recommendations

- 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



05-2020, Rev. 0520
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