



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

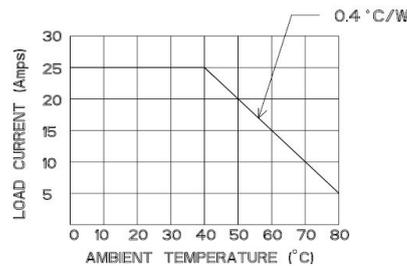
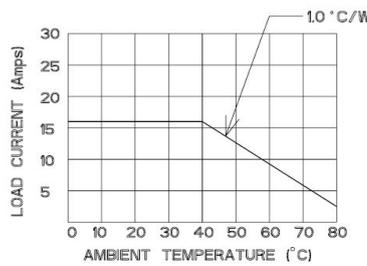
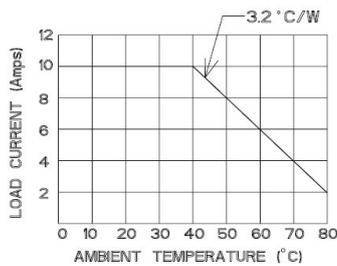
SSRMP Series (Continued)

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)		$f=60\text{Hz}$, $V_L = \text{Nom}$	mA	5		
On-State Voltage Drop (@rated current)		$I_L = \text{Max.}$	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			A ² Sec	55	144	259
Zero Turn-On Voltage			Vpk	15		
Thermal Resistance, Junction to case ($R_{\text{J-C}}$) (Max.)	240 & 480		°C/W	2.4	2.1	2
Turn -On Time (Max.)		$f= 60/ 50 \text{ Hz.}$	ms	10 for Zero Voltage Turn-On		
Turn -Off Time (Max.)				0.1 for Random Voltage Turn-On		
				10 for Zero Voltage Turn-On		
				8.3/10 for Random Voltage Turn-On		

* See Derating curve

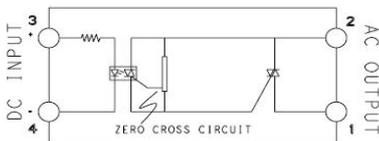
Electrical Characteristics (Thermal Derating Curves)



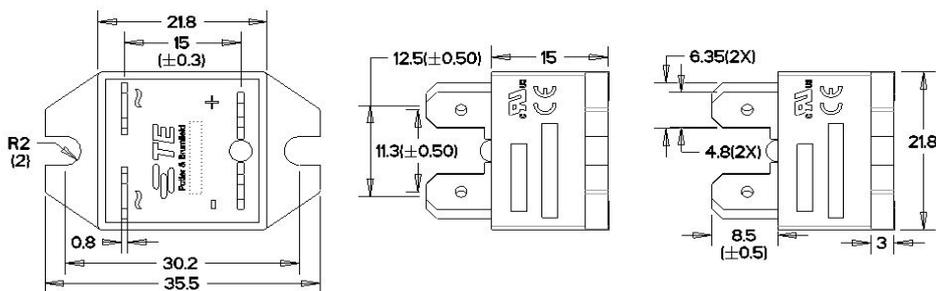
Heatsink Recommendations

- 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



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