



SOLID STATE DEVICES, INC.

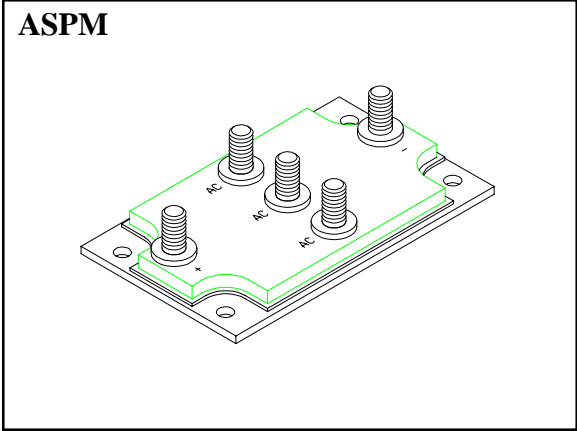
14830 Valley View Blvd * La Mirada, Ca 90638
 Phone: (562) 404-7855 * Fax: (562) 404-1773
 ssdi@ssdi-power.com * www.ssdi-power.com

DESIGNER'S DATA SHEET

SPMR527 Series

320/400 Amps
100/30 Volts
3 PHASE BRIDGE
POWER MODULE

- FEATURES:**
- 3 Phase High Current Schottky Rectifier Bridge
 - No Minority Carrier Switching Loss
 - Electrically Isolated Baseplate
 - Hermetically Sealed Packaging
 - Utilizes DBCu/Al₂O₃ for Low Loss Operation
 - Low Weight Al-SiC Baseplate
 - Available with Male (M), Female (F) or Blade (B) terminals
 - Screening to TX, TXV & S Level Available
 - Available in the Following Configurations:
- | | | |
|-------------|-------------|-------------|
| SPMR527M03, | SPMR527M04, | SPMR527M10, |
| SPMR527F03, | SPMR527F04, | SPMR527F10, |
| SPMR527B03, | SPMR527B04, | SPMR527B10 |

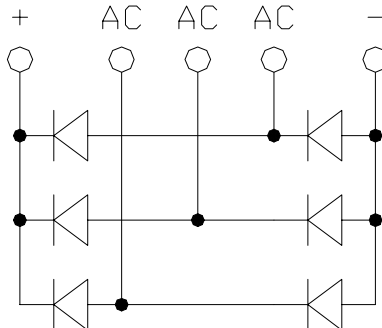


MAXIMUM RATINGS

CHARACTERISTIC	SYMBOL	VALUE			UNIT
		-03	-04	-10	
Peak Reverse Voltage & DC Blocking Voltage	V_{RRM} V_{RWM} V_R	30	45	100	Volts
Average Rectified Forward Current. (Resistive load, 60Hz, Sine Wave, $T_A = 25^\circ\text{C}$)	I_O	400 150	400 150	320 120	Amps per Bridge per Leg
Peak Surge Current (Non-repetitive, $t = 8.3$ ms Half Sine Wave Pulse)	I_{FSM}	1000	1000	1000	Amps
Operating & Storage Temperature Range	T_{OP} & T_{STG}	-55 TO +175			$^\circ\text{C}$
Thermal Resistance, Junction to Base per Bridge per Leg	θ_{Jbc}	0.14 0.85	0.14 0.85	0.14 0.85	$^\circ\text{C/W}$

ELECTRICAL SCHEMATIC

SPMR527



NOTE: All specifications are subject to change without notification. SCD's for these devices should be reviewed by SSDI prior to release.

DATA SHEET #: PM0014A

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ELECTRICAL CHARACTERISTICS (per Leg)

RATING	SYMBOL	MAX			UNIT	
		-03	-04	-10		
Forward Voltage Drop ($T_A = 25^\circ\text{C}$, 300 μsec Pulse)	$I_F = 1/3$ of Rated I_O per Leg	V_{F1}	0.46	0.55	0.71	V_{DC}
	$I_F =$ Rated I_O per Leg	V_{F2}	0.65	0.78	0.91	
Forward Voltage Drop ($I_F =$ Rated I_O per Leg, $T_C = 125^\circ\text{C}$, 300 μsec pulse)		V_{F3}	0.60	0.73	0.74	V_{DC}
Reverse Leakage Current (Rated V_R , 300 μs pulse min.)	$T_A = 25^\circ\text{C}$	I_{R1}	7.5	12	5.0	mA
	$T_A = 125^\circ\text{C}$	I_{R2}	500	500	100	
Junction Capacitance ($V_R = 5V_{DC}$, $T_A = 25^\circ\text{C}$, $f = 1\text{MHz}$)		C_J	7500	7500	3200	pF
Isolation Leakage Current (All terminals in Common to Base @500V)		R_{ISO}	500	500	500	nA

PACKAGE OUTLINE: SPMR527

NOTES:

(Unless otherwise specified)

All dimensions are in inches

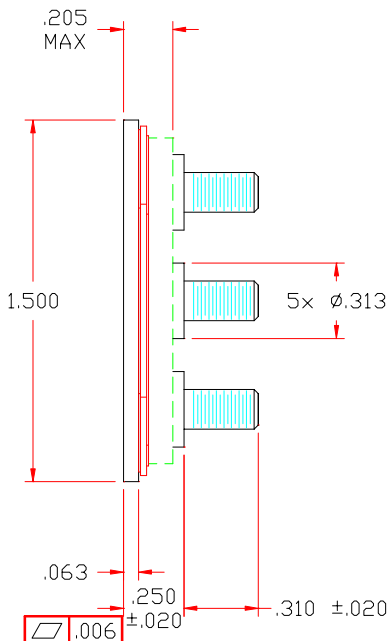
Tolerances (Unless specified):

.XX $\pm .03$

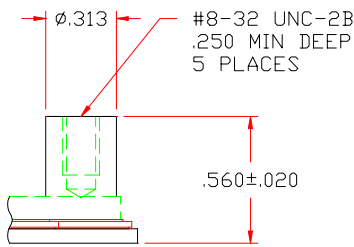
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Contact Factory for Outline with Other
Terminals

Terminal Option M



Terminal Option F



Terminal Option B

