



SOLID STATE DEVICES, INC.

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DESIGNER'S DATA SHEET

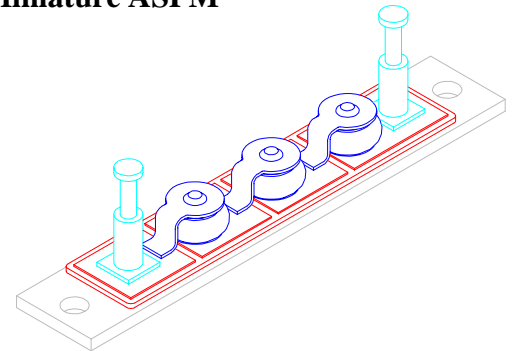
SPMR494-01 SPMR494-02

60 A / 1000V BATTERY CHARGE POWER MODULE

FEATURES:

- Optimized for Use with NiH2 Batteries
- Radiation Tolerant Design
- High Charge Current
- Controlled Forward Discharge Voltage (V_{FD})
- Proven Space Flight Heritage
- Compact and Rugged Construction Offering Weight and Space Savings and Very Low Mechanical Stress
- Low Thermal Resistance: 0.45 °C/W
- Hermetic Sealed Discrete Elements
- TX, TXV, and S-Level Screening Available
- Higher Currents and Higher Voltages Available

Miniature ASPM

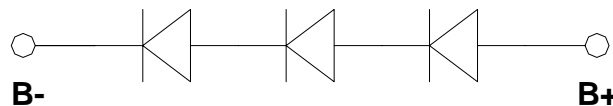


Actual Size

MAXIMUM RATINGS

CHARACTERISTIC	SYMBOL	VALUE	UNIT
Peak Repetitive Reverse and DC Blocking Voltage	V_R	1000	Volts
Average Rectified Forward Current (Non-repetitive, t = 8.3 ms Pulse)	I_O	60	Amps
Peak Surge Current (Non-repetitive, t = 8.3 ms Pulse, $T_A = 25^\circ\text{C}$)	I_{FSM}	200	Amps
Operating and Storage Temperature Range	T_{OP}	-65 TO +150	°C
Thermal Resistance, Junction to Base	θ_{JB}	0.45	°C/W

ELECTRICAL SCHEMATIC



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

DATA SHEET #: PM0017A

SPMR494-01
SPMR494-02



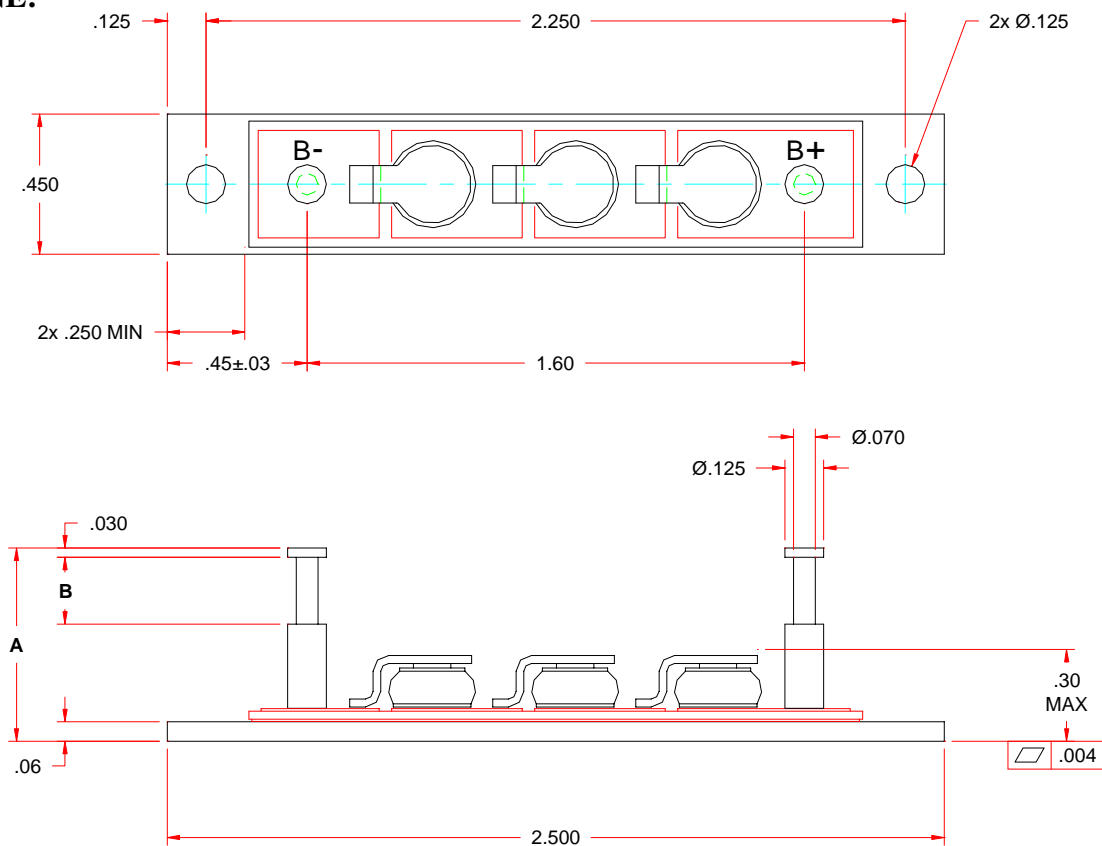
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ELECTRICAL CHARACTERISTICS (per Section)

RATING		SYMBOL	MIN	MAX	UNIT
Forward Voltage ($T_A = 25^\circ\text{C}$)	$I_F = 0.1\text{A}$	V_{F1}	1.6	--	Volts
	$I_F = 5\text{A}$	V_{F2}	2.16	--	
	$I_F = 20\text{A}$	V_{F3}	--	3.00	
	$I_F = 35\text{A}$	V_{F4}	--	3.25	
Forward Voltage ($I_F = 20\text{A}$)	$T_A = 125^\circ\text{C}$	V_{F5}	--	2.50	Volts
	$T_A = -55^\circ\text{C}$	V_{F6}	--	3.20	
Reverse Leakage Current ($V_R = 150\text{V}$)	$T_A = 25^\circ\text{C}$	I_{R1}	--	20	μA
	$T_A = +100^\circ\text{C}$	I_{R2}	--	2.0	mA
Insulation Resistance (All terminals to Base @1000V)		R_{INS}	1.0	--	G Ω

PACKAGE OUTLINE:



Tolerances:
 (Unless specified):
 .XX ± 0.03
 .XXX ± 0.010

DIMENSIONS		
DIM	A	B
SPMR494-01	0.77"	0.365"
SPMR494-02	0.62"	0.220"