

**SOLID STATE DEVICES, INC.**

14830 Valley View Blvd \* La Mirada, Ca 90638  
 Phone: (562) 404-7855 \* Fax: (562) 404-1773

**SPMS506-01 & -01M  
 SPMS506-01F & -01FM**

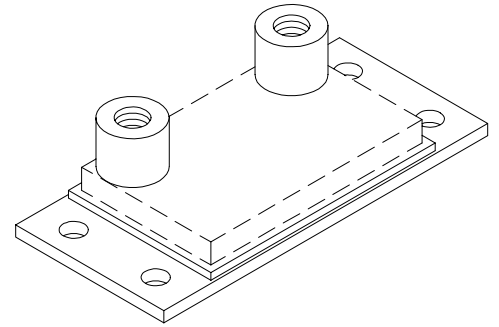
**150 AMPS DISCHARGE  
 50 AMPS CHARGE CURRENT  
 BATTERY BYPASS  
 POWER MODULE**

**DESIGNER'S DATA SHEET**

**FEATURES:**

- Space Flight Proven Heritage.
- High Charge/Discharge Current.
- Low Forward Discharge Voltage ( $V_{FD}$ )
- Guaranteed Minimum Charge Voltage ( $V_{FC}$ )
- Compact and Rugged Construction Offering Weight and Space Savings.
- Very Low Mechanical Stress and Thermal Resistance.
- Hermetic Sealed Discrete Elements.
- Excellent Thermal Management.
- TX, TXV, and S-Level Screening Available Upon Request.
- Available with Male or Female and Inch or Metric Terminals.

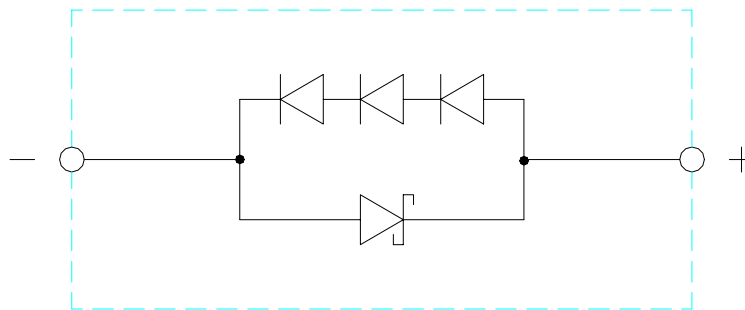
ASPM



**MAXIMUM RATINGS**

CHARACTERISTIC	SYMBOL	VALUE	UNIT
Discharge Current (Schottky's)	$I_D$	150	Amps
Charge Current (Rectifiers)	$I_C$	50	Amps
Discharge Surge Current (Non-repetitive, $t = 8.3$ ms Pulse)	$I_{DP}$	750	Amps
Operating and Storage Temperature Range	$T_{OP}$ & $T_{STG}$	-65 TO +150	$^{\circ}C$
Thermal Resistance, Junction to Base	Discharging Leg $\theta_{JBd}$	0.75	$^{\circ}C/W$
	Charging Leg $\theta_{JBc}$	0.45	

**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 #: PM0011A**

**SPMS506-01 & -01M**  
**SPMS506-01F & -01FM**

PRELIMINARY



**SOLID STATE DEVICES, INC.**

14830 Valley View Blvd \* La Mirada, Ca 90638  
 Phone: (562) 404-7855 \* Fax: (562) 404-1773

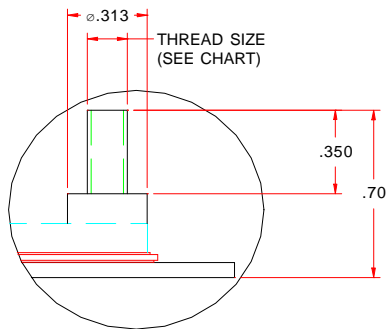
**ELECTRICAL CHARACTERISTICS**

RATING		SYMBOL	MIN	MAX	UNIT
<b>Forward Discharge Voltage</b> ( $T_A = 25^\circ\text{C}$ )	$I_F = 20\text{A}$	$V_{FD1}$	--	.450	Volts
	$I_F = 50\text{A}$	$V_{FD2}$	--	.550	
	$I_F = 100\text{A}$	$V_{FD3}$	--	.680	
	$I_F = 150\text{A}$	$V_{FD4}$	--	.800	
<b>Forward Discharge Voltage</b> ( $I_F = 50\text{A}$ )	$T_A = -55^\circ\text{C}$	$V_{FD5}$	--	.650	Volts
	$T_A = +125^\circ\text{C}$	$V_{FD6}$	--	.480	
<b>Forward Charge Voltage</b> ( $T_A = 25^\circ\text{C}$ )	$I_F = 350\text{mA}$	$V_{CD1}$	1.65	--	Volts
	$I_F = 5\text{A}$	$V_{CD2}$	--	2.52	
	$I_F = 10\text{A}$	$V_{CD3}$	--	2.65	
	$I_F = 25\text{A}$	$V_{CD4}$	--	3.00	
	$I_F = 50\text{A}$	$V_{CD5}$	--	3.30	
<b>Forward Charge Voltage</b> ( $I_F = 25\text{A}$ )	$T_A = -55^\circ\text{C}$	$V_{CD6}$	--	3.20	Volts
	$T_A = +125^\circ\text{C}$	$V_{CD7}$	--	2.50	
<b>Insulation Resistance</b> (All terminals to Base @ 1000V)		$R_{INSUL}$	1.0	--	$G\Omega$

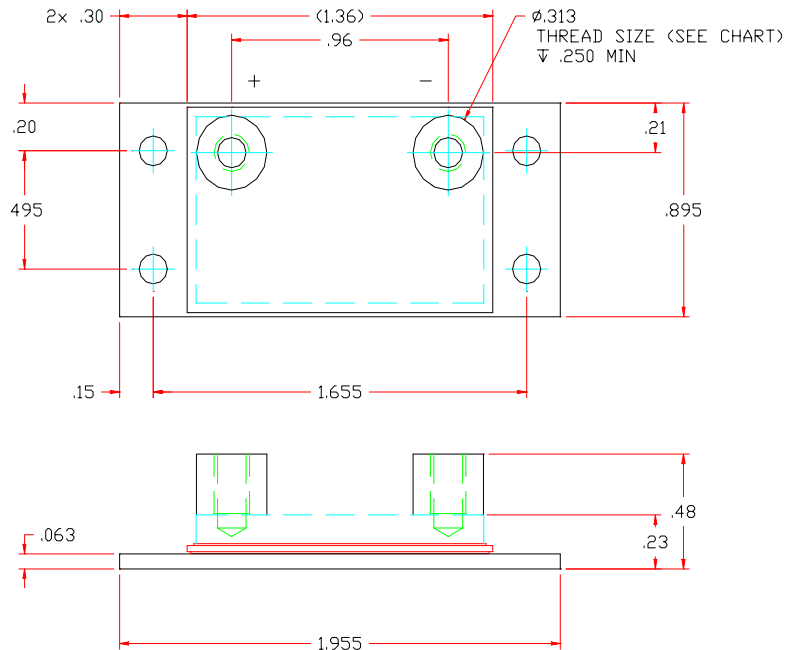
**PACKAGE OUTLINE: ASPM**

(Unless otherwise specified)

All dimensions are in inches



Optional Terminal  
(Suffix F or FM)



**THREAD STYLE/SIZE**

PART No.	THREAD TYPE	THREAD SIZE
SPMS506-01	INCH MALE	6-32 UNC-2A
SPMS506-01F	INCH FEMALE	6-32 UNC-2B
SPMS506-01M	METRIC MALE	M4 x 0.7
SPMS506-01FM	METRIC FEMALE	M4 x 0.7

Tolerances  
(Unless specified):

.XX ±.03  
 .XXX ±.010