



Solid State Devices, Inc.

14701 Firestone Blvd * La Mirada, Ca 90638
 Phone: (562) 404-4474 * Fax: (562) 404-1773
 ssdi@ssdi-power.com * www.ssdi-power.com

SPMS506-01A Series

150 AMP DISCHARGE 60 AMP CHARGE BATTERY BYPASS POWER MODULE

Designer's Data Sheet

Part Number/Ordering Information ^{1/}

SPMS506-

Screening ^{2/}

— = Not Screened
 TX = TX Level
 TXV = TXV
 S = S Level

Thread Type

01A = Inch, Male
 01AF = Inch, Female
 01AM = Metric, Male
 01AFM = Metric, Female

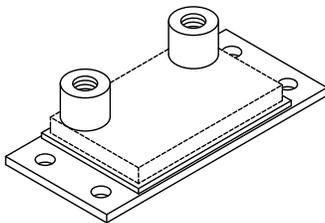
FEATURES:

- 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
- Available with Male or Female and Inch or Metric Terminals
- TX, TXV, and Space Level Screening Available

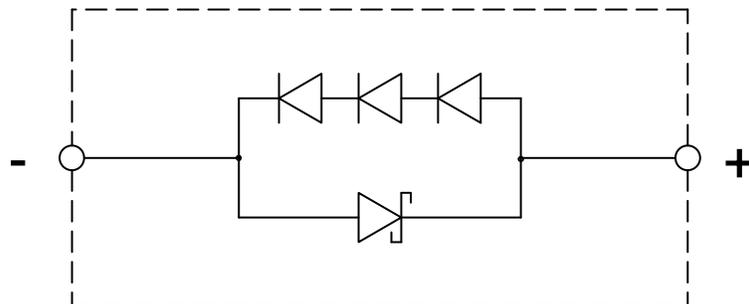
MAXIMUM RATINGS

CHARACTERISTIC	SYMBOL	VALUE	UNIT
Discharge Current (Schottkys)	I_D	150	Amps
Charge Current (Rectifiers)	I_C	60	Amps
Discharge Surge Current (Non-Repetitive, $t = 8.3$ msec Pulse)	I_{DP}	750	Amps
Storage & Operating Temperature Range	T_{OP} & T_{STG}	-65 to +150	°C
Thermal Resistance, Junction to Base	Discharging Leg θ_{JBd}	0.75	°C/W
	Charging Leg θ_{JBc}	0.45	

ASPM



ELECTRICAL SCHEMATIC



NOTES:

- ^{1/} For Ordering Information, Price, Operating Curves, and Availability Contact Factory.
^{2/} Screening per MIL-PRF-19500.

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

DATA SHEET #: PM0024B

DOC



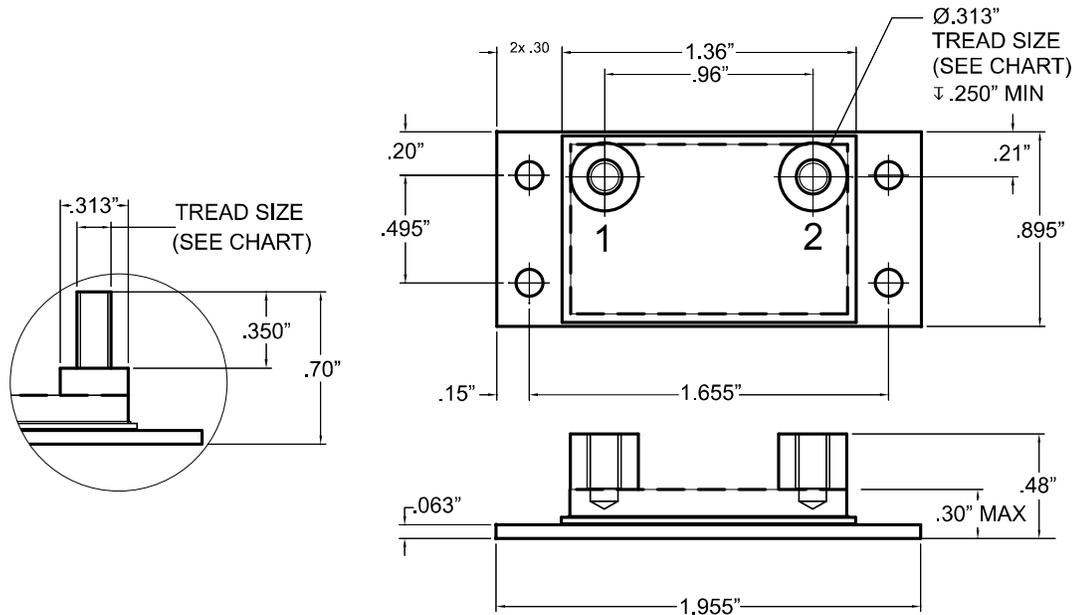
Solid State Devices, Inc.
 14701 Firestone Blvd * La Mirada, Ca 90638
 Phone: (562) 404-4474 * Fax: (562) 404-1773
 ssdi@ssdi-power.com * www.ssdi-power.com

SPMS506-01A Series

ELECTRICAL CHARACTERISTICS

RATING		SYMBOL	MIN	MAX	UNIT
Forward Discharge Voltage ($T_A = 25^\circ\text{C}$)	$I_F = 20\text{A}$	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	
Forward Discharge Voltage ($I_F = 50\text{A}$)	$T_A = -55^\circ\text{C}$	V_{FD5}	---	.650	Volts
	$T_A = +125^\circ\text{C}$	V_{FD6}	---	.480	
Forward Discharge Voltage ($T_A = 25^\circ\text{C}$)	$I_F = 350\text{mA}$	V_{CD1}	1.65	---	Amps
	$I_F = 5\text{A}$	V_{CD2}	---	2.9	
	$I_F = 15\text{A}$	V_{CD3}	---	3.5	
	$I_F = 30\text{A}$	V_{CD4}	---	4.2	
	$I_F = 60\text{A}$	V_{CD5}	---	5.3	
Forward Discharge Voltage ($I_F = 30\text{A}$)	$T_A = -55^\circ\text{C}$	V_{CD6}	---	4.4	Amps
	$T_A = +125^\circ\text{C}$	V_{CD7}	---	4.0	
Insulation Resistance (All terminals to base @ 1,000V)		R_{INSUL}	1.0	---	GΩ

PACKAGE OUTLINE: ASPM



THREAD SIZE TYPE			Tolerances (Unless Specified) .XX ±.03" .XXX ±.010"
Part Number	Thread Type	Thread Size	
SPMS506-01A	INCH - MALE	6-32 UNC-2A	
SPMS506-01AF	INCH - FEMALE	6-32 UNC-2B	
SPMS506-01AM	METRIC - MALE	M4 x 0.7	
SPMS506-01AFM	METRIC - FEMALE	M4 x 0.7	

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

DATA SHEET #: PM0024B

DOC