PRELIMINARY

SPMR451-01

SOLID STATE DEVICES, INC.
14005 Stage Road * Santa Fe Springs, Ca 90670
Phone: (562) 404-4474 * Fax: (562) 404-1773

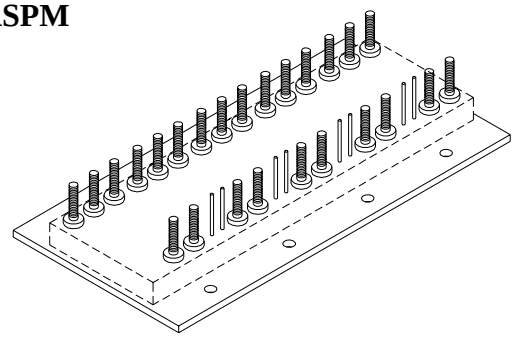
180 AMPS/600 VOLTS
5 CELLS
SRM POWER MODULE

DESIGNER'S DATA SHEET

FEATURES:

- **Application: Power Input Module for Power Controller.**
- **Fail-Safe Configuration Utilizing Multiple Cell Design.**
- **Low Mechanical Stress Design.**
- **Hermetic Sealed Construction for Aerospace Applications.**
- **Excellent Thermal Management.**
- **Low Forward Voltage (V_F).**
- **Voltage Monitor Included for Customer Specified Ratio.**
- **Full Power Screened Hermetic Discretes.**
- **TX, TXV, and S-Level Screening Available.**
- **Consult Factory for Other Configurations and Terminal Styles.**

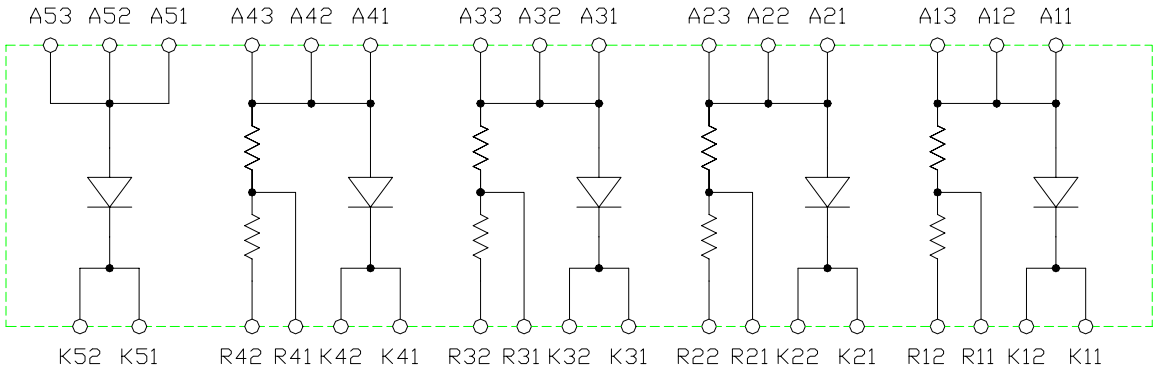
ASPM



MAXIMUM RATINGS

CHARACTERISTIC	SYMBOL	VALUE	UNIT
Peak Repetitive Reverse and DC Blocking Voltage, per Cell	V_{RM} V_{RWM} V_R	600	Volts
Average Rectified Forward Current, per Cell (Non-repetitive, t = 8.3 ms Pulse)	I_O	180	Amps
Peak Surge Current, per Cell (Non-repetitive, t = 8.3 ms Pulse, T_J = 25°C)	I_{FSM}	750	Amps
Operating Temperature Range	T_{OP}	-55 TO +150	°C
Storage Temperature Range	T_{STG}	-55 TO +150	°C
Thermal Resistance, Junction to Base, per Cell	Θ_{JB}	0.30	°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 #: PM0003A

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ELECTRICAL CHARACTERISTICS @ T_J =25°C, per Cell (Unless Otherwise Specified)

PARAMETER	SYMBOL	MIN	MAX	UNIT
Instantaneous Forward Voltage Drop (I_F = 180A, T_B = 25°C) (I_F = 180A, T_B = -55°C)	V_{F1} V_{F2}	- -	2.5 2.8	Volts
Reverse Leakage (V_R = 600V, T_B = 25°C) (V_R = 600V, T_B = 100°C)	I_{R1} I_{R2}	- -	100 1000	µAmps
Insulation Resistance (All terminals to Base @1000V)	R_{INSUL1}	1	-	GΩ
Insulation Resistance (Between Cells @1000V)	R_{INSUL2}	1	-	GΩ
Resistance of Series Resistors	R_{SER}	215	225	kΩ
Resistance of Monitor Resistors	R_{MON}	4.4	4.6	kΩ

PACKAGE OUTLINE: ASPM

Tolerances
(Unless specified):
.XX ±.03
.XXX ±.010