

SPMR451-01

**180 AMP, 600 VOLTS
 5 CELLS
 SRM POWER MODULE**

Designer's Data Sheet

Part Number/Ordering Information ^{1/}

SPMR451- 01 S

L Screening ^{2/}

— = Not Screened

TX = TX Level

TXV = TXV Level

S = S Level

Voltage

01 = 600 Volts

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
- Voltage monitor included for customer specified ratio
- Full power screened hermetic discretes
- TX, TXV, and S-level screening available^{2/}
- Consult factory for other configurations and terminal styles

MAXIMUM RATINGS ^{3/}

	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, $T_J = 25^\circ C$	I_{FSM}	750	Amps
Operating and Storage Temperature	T_{OP} & T_{STG}	-55 to +150	$^\circ C$
Thermal Resistance, Junction to Base, per cell	Θ_{JB}	0.30	$^\circ C/W$

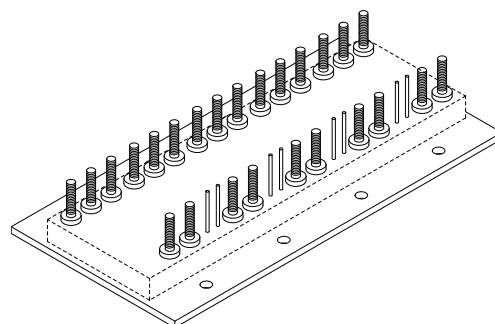
NOTES:

^{1/} For ordering information, price, operating curves, and availability- contact factory.

^{2/} Screening based on MIL-PRF-19500. Screening flows available on request.

^{3/} Unless otherwise specified, all electrical characteristics @ $25^\circ C$.

ASPM



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

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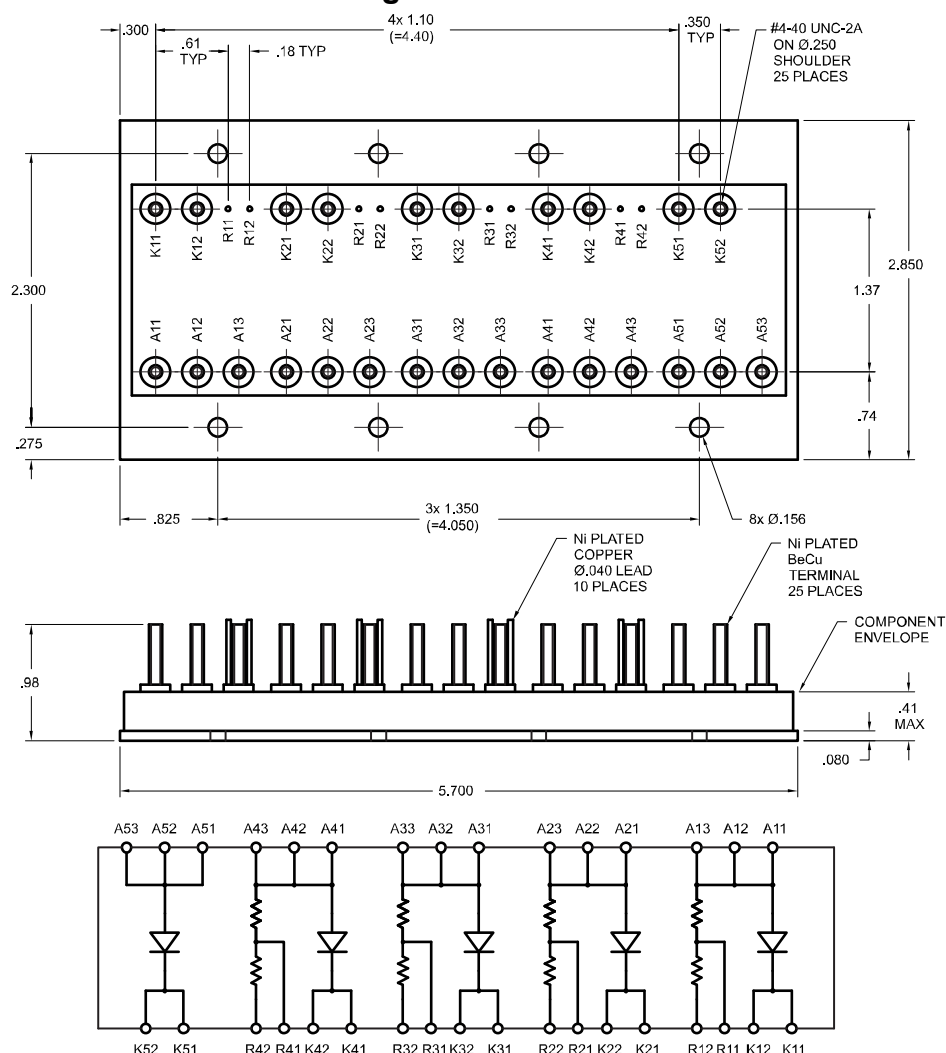
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ELECTRICAL CHARACTERISTICS (per cell) ^{3/}

PARAMETER		SYMBOL	MIN	MAX	UNIT
Instantaneous Forward Voltage Drop $I_F = 180A$	$T_B = 25^\circ C$	V_{F1}	--	2.5	Volts
	$T_B = -55^\circ C$	V_{F2}	--	2.8	
Reverse Leakage $V_R = 600V$	$T_B = 25^\circ C$	I_{R1}	--	10	μA
	$T_B = 100^\circ C$	I_{R2}	--	1000	
Insulation Resistance All terminals to base @1000V		R_{INSUL1}	1	-	$G\Omega$
Insulation Resistance Between cells @1000V		R_{INSUL2}	1	-	$G\Omega$
Resistance of Series Resistors		R_{SER}	215	225	$k\Omega$
Resistance of Monitor Resistors		R_{MON}	4.4	4.6	$k\Omega$

Package Outlines: ASPM



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