



Solid State Devices, Inc.

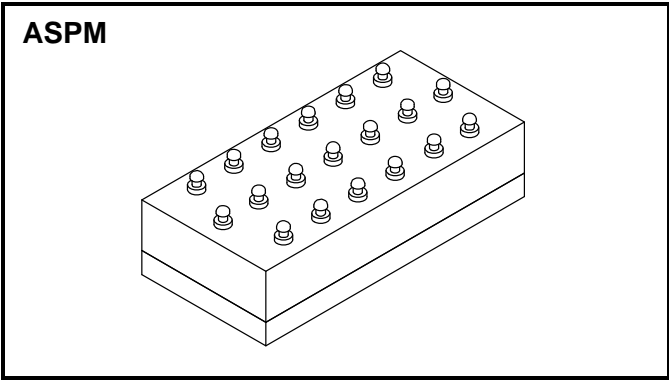
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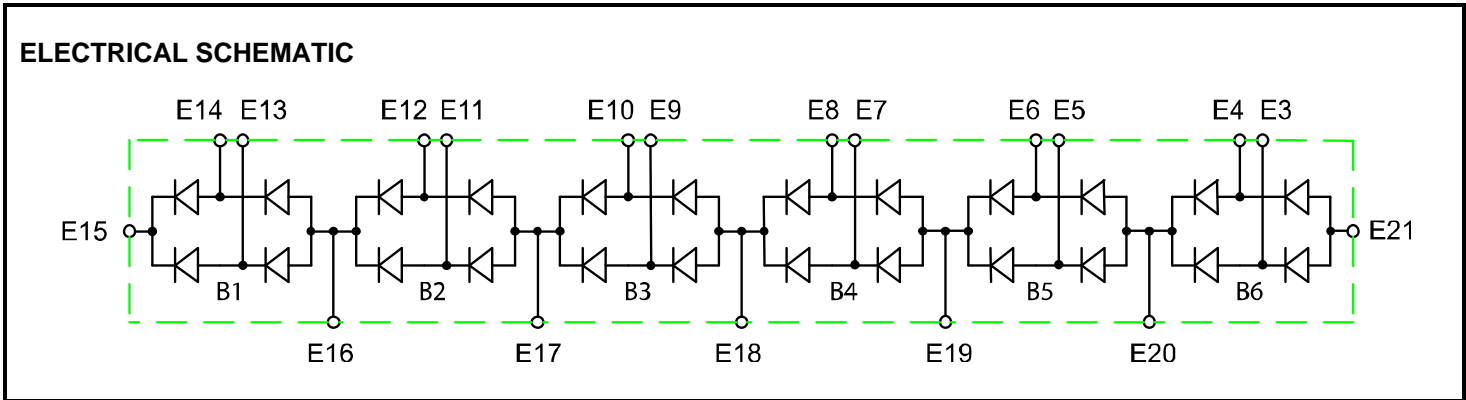
**1 AMP
 9,300 VOLTS
 HIGH VOLTAGE
 RECTIFIER BRIDGE STACK**

Designer's Data Sheet

- FEATURES:**
- Aerospace High Voltage Power Supply Applications
 - High Blocking Voltage – 9,300 V Minimum
 - Low Mechanical Stress Design
 - Excellent Thermal Management – 2.5 °C/W
 - TX, TXV, and Space Level Screening Available.
 - Consult Factory for:
 - Higher Blocking Voltages
 - Faster Switching Speeds
 - Other Electrical Configurations
 - Available with a sandblasted case to promote adhesion, add "SAB" suffix.



MAXIMUM RATINGS		Symbol	Value	Units
Peak Inverse Voltage (Each Bridge)	B1 B2-B6	V_R	3,300 1,200	Volts
Average Rectified Forward Current (Non-Repetitive, t = 8.3 ms Pulse)		I_o	1	Amps
Peak Surge Current (Non-Repetitive, t = 8.3 ms Pulse, T _A = 25°C)		I_{FSM}	25	Amps
Operating Temperature Range		T_{OP}	-65 to +150	°C
Storage Temperature Range		T_{stg}	-65 to +150	°C
Maximum Thermal Resistance (Junction to Base)		$R_{\theta JB}$	2.5	°C/W





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ELECTRICAL CHARACTERISTICS ^{1/}	Symbol	Min	Typ	Max	Units
Instantaneous Forward Voltage Drop ($I_F = 1.0\text{ A}$, 300 – 500 μsec Pulse)	B1 V_{F1}	—	—	7.5	Volts
	B2-B6 V_{F2}	—	—	2.5	
Instantaneous Forward Voltage Drop ($I_F = 0.35\text{ A}$, $T_A = 100^\circ\text{C}$, 300 – 500 μsec Pulse)	B2-B6 V_{F3}	—	—	1.3	Volts
Reverse Leakage Current ($T_A = 25^\circ\text{C}$, 300 – 500 μsec Pulse)	B1: $V_R = 2500\text{V}$ I_{R1}	—	—	1.0	μA
	B2-B6: $V_R = 1000\text{V}$ I_{R2}	—	—		
Reverse Leakage Current ($T_A = 100^\circ\text{C}$, 300 – 500 μsec Pulse)	B1: $V_R = 2500\text{V}$ I_{R3}	—	—	50	μA
	B2-B6: $V_R = 1000\text{V}$ I_{R4}	—	—		
Breakdown Voltage ($I_R = 100\ \mu\text{A}$)	B1 B_{VR1}	3,300	—	—	Volts
	B2-B6 B_{VR2}	1,200	—	—	
Insulation Resistance (All Terminals to Base @ 15,000 Volts)	R_{INSUL1}	10	—	—	$\text{G}\Omega$
Reverse Recovery Time ($I_F = 0.5\text{ A}$, $I_R = 1.0\text{ A}$, $I_{RR} = 0.25\text{ A}$)	t_{RR}	—	—	60	nsec
Capacitance (Per Diode)	B1: $V_R = 100\text{ V}$ C_{T1}	—	—	13	pF
	B2-B6: $V_R = 10\text{ V}$ C_{T2}	—	—	25	

NOTE: ^{1/} All Electrical Characteristics Are for Bridge Leg @ $T_A = 25^\circ\text{C}$ (Unless Otherwise Specified)

