



Solid State Devices, Inc.

14701 Firestone Blvd * La Mirada, Ca 90638
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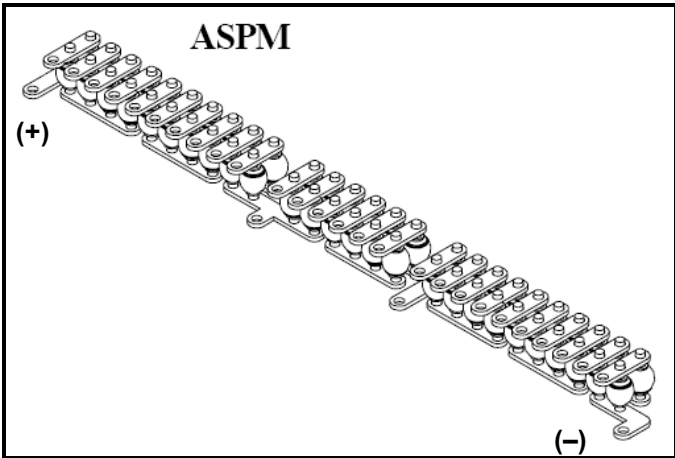
SPA498-01

**1 AMP, 13000 VOLTS
 HIGH VOLTAGE
 RECTIFIER BRIDGE STACK**

Designer's Data Sheet

Part Number / Ordering Information^{1/}
SPA498-01 Screening^{2/}
 = Not Screened
 TX = TX Level
 TXV = TXV
 S = S Level

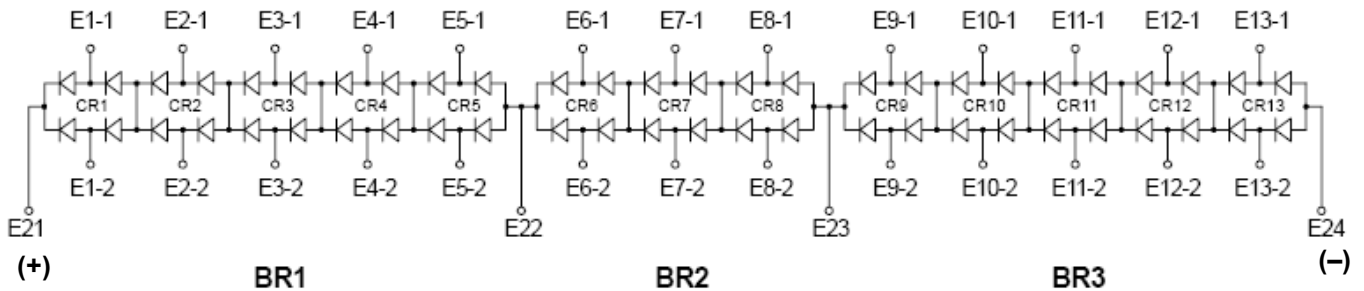
- Features:**
- Aerospace high voltage power supply applications
 - High blocking voltage – 13 kV minimum
 - Low mechanical stress design
 - TX, TXV, and Space level screening available
 - Consult factory for:
 - Higher blocking voltages
 - Faster switching speeds
 - Other electrical configurations



MAXIMUM RATINGS

Characteristic		Symbol	Value	Units
Peak Repetitive Reverse Voltage and DC Blocking Voltage	Bridge BR1	V_R	5000	Volts
	Bridge BR2		3000	
	Bridge BR3		5000	
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 and Storage Temperature		T _{op} & T _{stg}	-65 to +150	°C
Maximum Thermal Resistance Junction to Tab		R _{θJT}	2.5	°C/W

ELECTRICAL SCHEMATIC



- Notes:**
- ^{1/} For ordering information, price, operating curves, and availability, contact factory.
^{2/} Screening based on MIL-PRF-19500. Screening flows available on request.



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ELECTRICAL CHARACTERISTICS @ T_A = 25°C (unless otherwise specified)

PARAMETER, per each Bridge (CR1-CR13) Leg	SYMBOL	MIN	MAX	UNIT
Instantaneous Forward Voltage Drop (I _F = 1.0 A, 300 – 500 μsec pulse)	V_{F1}	-	1.9	Volts
Reverse Leakage (V _R = 1000 V, 300 μsec pulse minimum)	I _{R1} I _{R2}	-	5.0 500	μAmps
Reverse Recovery Time (I _F = 0.5 A, I _R = 1.0 A, I _{RR} = 0.25 A)	t _{RR}	-	70	nsec

