



Solid State Devices, Inc.

14701 Firestone Blvd * La Mirada, Ca 90638
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SPA498-02

1 AMP HIGH VOLTAGE RECTIFIER BRIDGE STACK 6000 Volts

Designer's Data Sheet

Part Number / Ordering Information ^{1/}

SPA498-02

 Screening ^{2/}

 = Not Screened

TX = TX Level

TXV = TXV

S = S Level

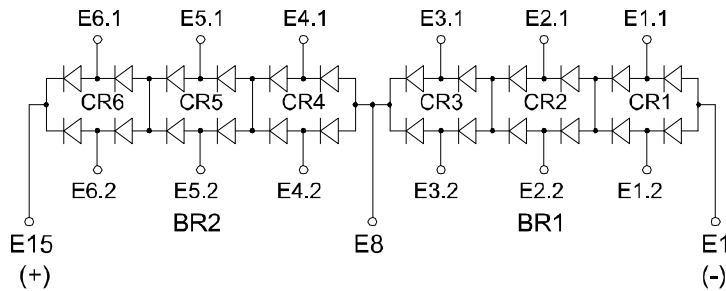
Features:

- Aerospace high voltage power supply applications
- High blocking voltage – 6 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

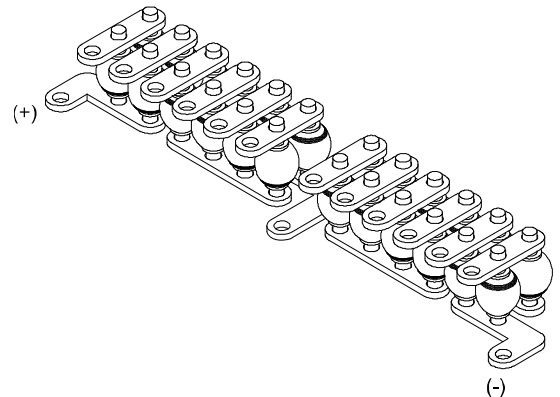
MAXIMUM RATINGS

Characteristic	Symbol	Value	Units
Peak Repetitive Reverse Voltage and DC Blocking Voltage	Bridge BR1 Bridge BR2	V_R	3000 6000 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 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



ASPM



Notes:

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

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

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

DATA SHEET #: PM0026A

DOC



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ELECTRICAL CHARACTERISTICS, @ $T_A = 25\text{ }^\circ\text{C}$ (unless otherwise specified)

PARAMETER, per each Bridge (CR1-CR6) Leg	SYMBOL	MIN	TYP	MAX	UNIT
Instantaneous Forward Voltage Drop ($I_F = 1.0\text{A}$, 300 – 500 μsec pulse)	V_{F1}	-	-	1.9	Volts
Reverse Leakage ($V_R = 1000\text{V}$, 300 μsec pulse minimum)	I_{R1}	-	-	5.0	μAmps
	I_{R2}	-	-	500	
Reverse Recovery Time ($I_F = 0.5\text{A}$, $I_R = 1.0\text{A}$, $I_{RR} = 0.25\text{A}$)	t_{RR}	-	70	-	nsec

