Solid State Devices, Inc.
14701 Firestone Blvd * La Mirada, Ca 90638
Phone: (562) 404-4474 * Fax: (562) 404-1773
ssdi@ssdi-power.com * www.ssdi-power.com

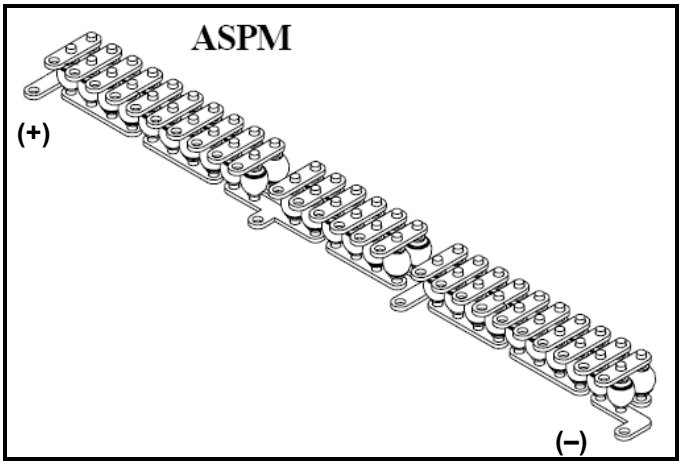
SPA498-01

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



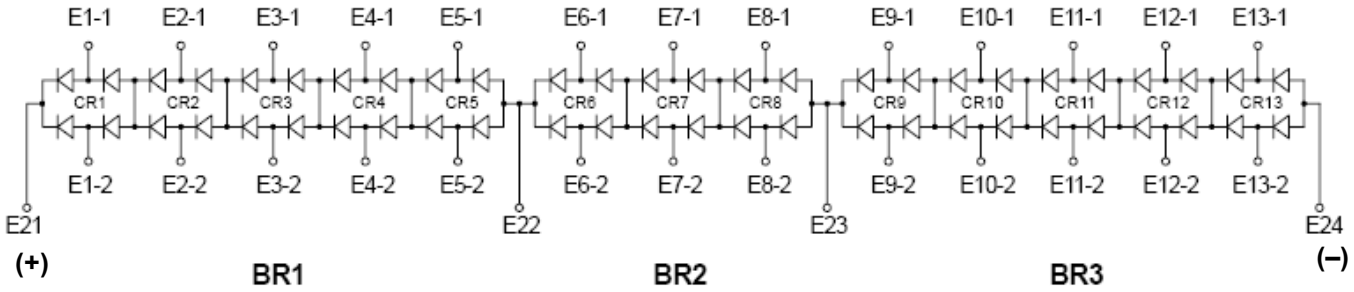
Features:

- 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 Bridge BR2 Bridge BR3	V_R	5000 3000 5000	**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 = 25ºC)		I_{FSM}	25	**Amps**
Operating and Storage Temperature		T_{op} & T_{stg}	-65 to +150	**ºC**
Maximum Thermal Resistance Junction to Tab		$R_{\theta JT}$	2.5	**ºC/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.

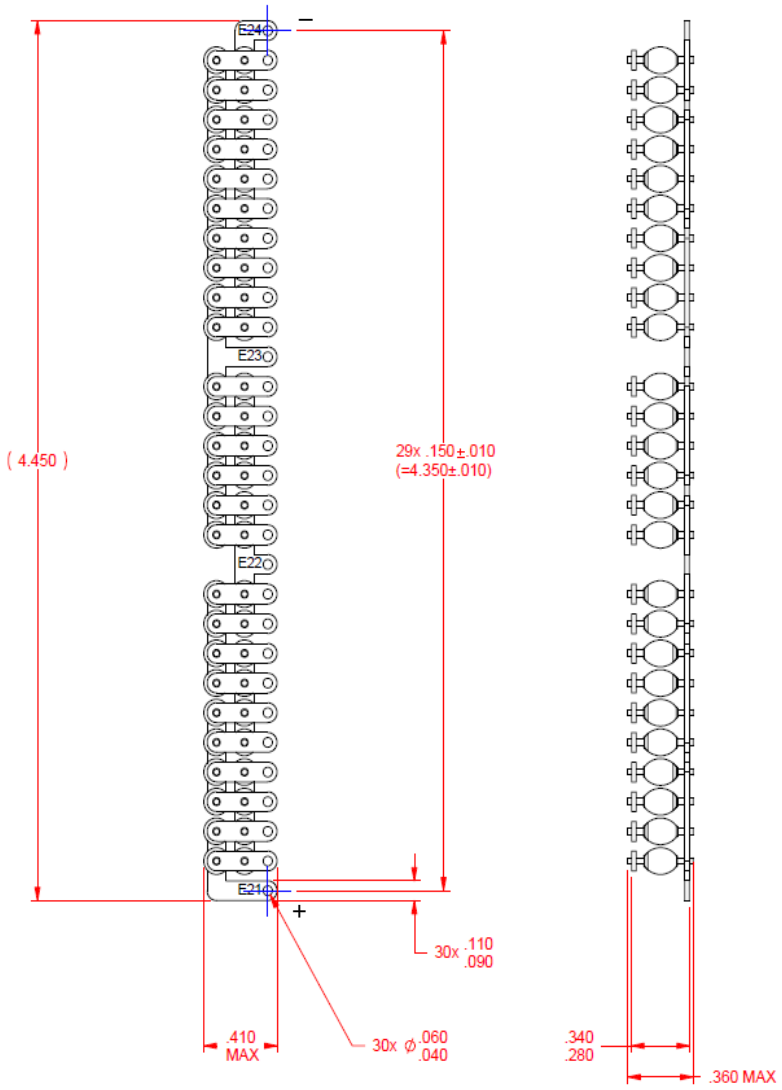
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SPA498-01

ELECTRICAL CHARACTERISTICS @ T_A = 25ºC (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)	T_A = 25ºC T_A = 100ºC	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

CASE OUTLINES: ASPM



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

NOTE: All specifications are subject to change without notification. SCD's for these devices should be reviewed by SSDI prior to release.	DATA SHEET #: PM0016B	DOC