



Solid State Devices, Inc.

14701 Firestone Blvd * La Mirada, Ca 90638
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SPA516L-3HF

1 Amp, 30 nsec Hyper Fast Recovery Dual Single Phase Bridge Assembly

DESIGNER'S DATA SHEET

Part Number / Ordering Information ^{1/}

SPA516L-3 HF

└─ Screening ^{2/}
 — = Not Screened
 TX = TX Level
 TXV = TXV Level
 S = S Level
 └─ Recovery Time
 HF = Hyper Fast Recovery

Features:

- Hyper fast recovery: 30 nsec maximum
- 2700 volt blocking voltage
- 6000 volt dielectric voltage
- Average output current: 1 amps
- Low reverse leakage current
- Glass passivated rectifiers
- Hermetically sealed discretes
- Aluminum base for maximum thermal conductivity
- TX, TXV & S level screening available

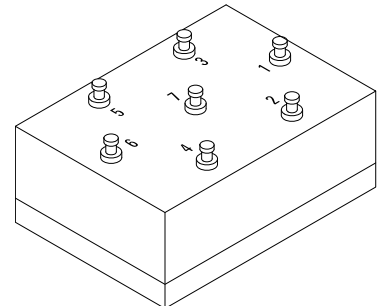
Maximum Ratings ^{3/}

Maximum Ratings ^{3/}	Symbol	Value	Units
Peak Repetitive Reverse and DC Blocking Voltage	V_{RRM} V_{RWM} V_R	2700	Volts
Average Rectified Forward Current (Resistive load, 60Hz, Sine Wave)	I_O	1 0.5	Amps
Peak Surge Current (8.3 ms Pulse, Half Sine Wave, $T_C = 25^\circ\text{C}$, per leg)	I_{FSM}	25	Amps
Operating & Storage Temperature Junction Temperature	T_{op} & T_{stg} T_J	-55 to +150 -55 to +175	$^\circ\text{C}$
Maximum Thermal Resistance Junction to Case	Per Assembly $R_{\theta JC}$	2.5	$^\circ\text{C/W}$

Notes:

- ^{1/} For ordering information, price, and availability, contact factory.
^{2/} Screening based on MIL-PRF-19500. Screening flows available on request.
^{3/} Unless otherwise specified, all maximum ratings/electrical characteristics @25 $^\circ\text{C}$.

SPA516L-3HF



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

DATA SHEET #: RA0108A

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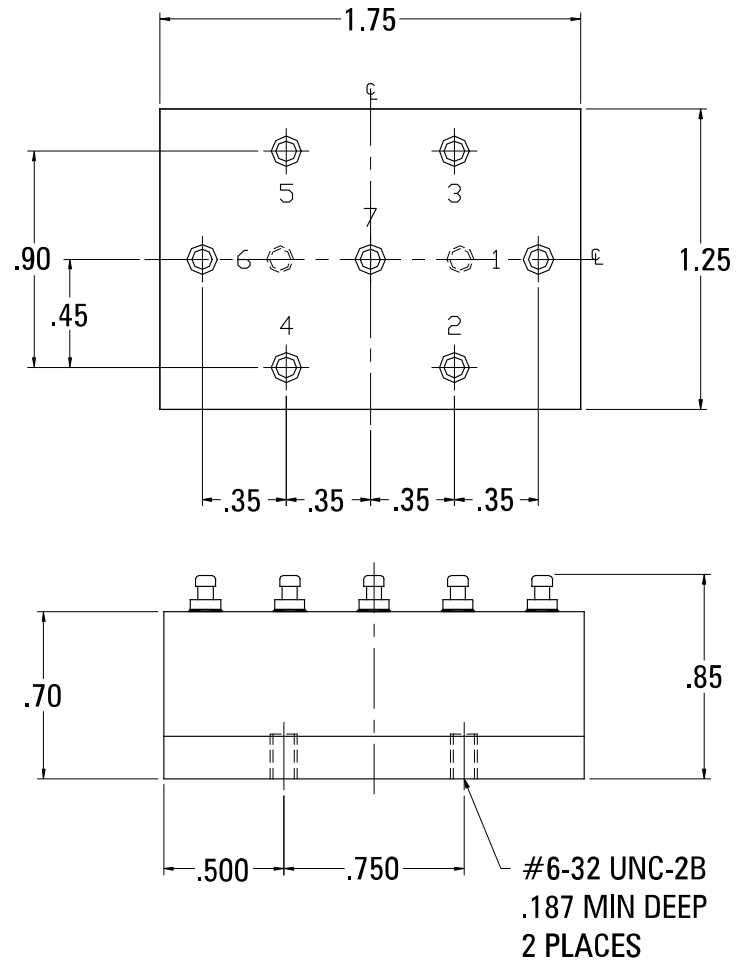
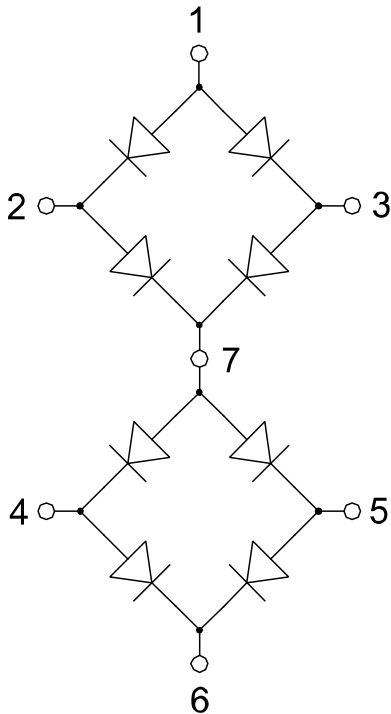
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Electrical Characteristic (per leg) ^{3/}		Symbol	Value	Units
Instantaneous Forward Voltage Drop (300 - 500µsec pulse)	$I_F = 1 \text{ A}$	V_{F1}	6.0	Vdc
Reverse Leakage Current (Rated V_R , 300µs pulse minimum)	$T_A = 25^\circ\text{C}$ $T_A = 100^\circ\text{C}$	I_{R1} I_{R2}	10 400	μA μA
Reverse Recovery Time ($I_F = 500 \text{ mA}$, $I_R = 1 \text{ A}$, $I_{RR} = 250 \text{ mA}$)		t_{RR}	30	nsec
Isolation Resistance (All terminals in common to case)	6000 V	R_{ISO}	1.0	GΩ

CASE OUTLINE: SPA516



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