



SOLID STATE DEVICES, INC.

14830 Valley View Blvd * La Mirada, Ca 90638

Phone: (562) 404-7855 * Fax: (562) 404-1773

ssdi@ssdi-power.com * www.ssdi-power.com

Designer's Data Sheet

FEATURES:

- Ultra Fast Recovery: 70 nsec Maximum
- 3000 V Blocking Voltage
- 6000 V Dielectric Voltage
- Average Output Current 3 Amps
- Low Reverse Leakage Current
- Glass Passivated Rectifiers
- Hermetically Sealed Discretes
- Aluminum Base for Maximum Thermal Conductivity
- TX and TXV Level Screening Available

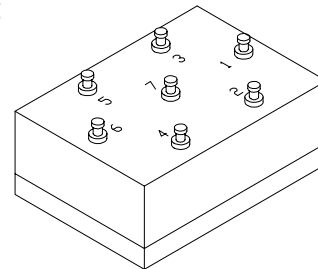
SPA516L-3UF

3 AMPS

70 nsec

**ULTRA FAST RECOVERY
DUAL SINGLE PHASE
BRIDGE ASSEMBLY**

SPA516



Maximum Ratings	SYMBOL	VALUE	UNITS
Peak Repetitive Reverse and DC Blocking Voltage	V_{RRM} V_{RWM} V_R	3000	Volts
Average Rectified Forward Current (Resistive load, 60Hz, Sine Wave) $T_C = 25^{\circ}\text{C}$ $T_C = 100^{\circ}\text{C}$	I_o	3 1.5	Amps
Peak Surge Current (8.3 ms Pulse, Half Sine Wave, $T_A = 25^{\circ}\text{C}$, per leg)	I_{FSM}	75	Amps
Operating and Storage Temperature Junction Temperature	$T_{OP} \text{ \& } T_{stg}$ T_J	-55 TO +150 -55 TO +175	$^{\circ}\text{C}$
Maximum Thermal Resistance Junction to Case (per Assebly) Junction to Case (per Leg)	θ_{JC}	1.125 9.0	$^{\circ}\text{C/W}$

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

DATA SHEET # : RA0020B

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Electrical Characteristics ^{1/} (per leg)		SYMBOL	VALUE	UNITS
Instantaneous Forward Voltage Drop (300 - 500μsec pulse)	I _F = 0.5A	V _{F1}	3.75	Vdc
	I _F = 1A	V _{F2}	4.35	
	I _F = 3A	V _{F3}	5.70	
Reverse Leakage Current (Rated V _R , 300μs pulse minimum)	T _A = 25°C	I _{R1}	10	μA
	T _A = 100°C	I _{R2}	1.0	mA
Reverse Recovery Time (I _F = 0.5A, I _R = 1.0A, I _{RR} = 0.25A)		t _{RR}	70	nsec
Isolation Resistance (All Terminals in Common to Case) (V = 6000V)		R _{ISO}	1.0	GΩ

^{1/} T_A = 25°C, Unless otherwise specified

CASE OUTLINE: SPA516

