



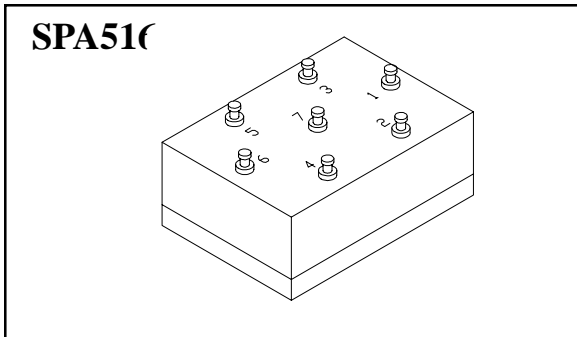
SOLID STATE DEVICES, INC.

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Designer's Data Sheet

SPA516L-3UF

**3 AMPS
70 nsec
ULTRA FAST RECOVERY
DUAL SINGLE PHASE
BRIDGE ASSEMBLY**



- 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

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)	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} & 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)	$T_A = 25^\circ C$	I_{R1}	10	μA
	$T_A = 100^\circ C$	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/} $T_A = 25^\circ C$, Unless otherwise specified

CASE OUTLINE: SPA516

