TL510B

SUPER LOW VF SCHOTTKY RECTIFIERS

VOLTAGE	100 Volts	CURRENT	5 Ampers

FEATURES

- Power pack
- Metal silicon junction ,majority carrier conduction
- Guard ring for overvoltage protection
- Low power loss ,high efficiency
- High current capability ,low forward voltage drop
- High forward surge capability
- High frequency operation
- Component in accordance to RoHS 2011/65/EU

MECHANICAL DATA

- Case: JEDEC DO-214AA(SMB) molded plastic body.
- Molding compound meets UL94V-0 flammability rating
- Terminals: Lead solderable per J-STD-002 and JESD22-B102
- Polarity: As marked
- Mounting Torque: 10 in-lbs maximum

TYPICAL APPLICATIONS

- For use in low voltage ,high frequency inverters ,DC/DC converters,free wheeling ,and polarity protection applications

Marking



Maximum Ratings (Ratings at 25℃ ambient temperature unless otherwise specified)

Parameter		Symbol	TL510B	Unit
Maximum repetitive peak reverse voltage		V_{RRM}	100	V
Maximum average forward rectified current(see fig.1)		$I_{F(AV)}$	5	A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC method at rated TL)		I_{FSM}	120	A
Maximum instantaneous forward voltage at 5.0 A		V_F	0.6	V
Maximum instantaneous reverse current at rated DC blocking voltage [1]	T_C=25℃	I_{RRM}	100	μA
	TC=150℃		20	mA
Operating junction and Storage temperature range		T_J ,T_{STD}	-55 to +150	℃

Thermal Characteristcs (Ratings at 25℃ ambient temperature unless otherwise specified)

Parameter	Symbol	TL510B	Unit
Typical thermal resistance [2]	RθJA	55	℃/W
	RθJL	17	

Notes: 1.Pulse test: 300 μs pulse width,1% duty cycle.

2.Thermal resistance from junction to lead vertical P.C.B. mounted , 0.375"(9.5mm)lead length

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Pb-Free RoHS COMPLIANT

RATINGANDCHARACTERISTICCURVES

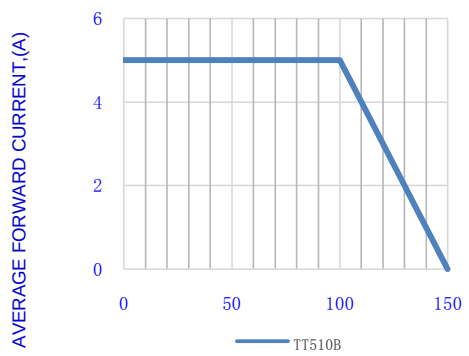


Fig.1-FORWARD CURRENT DERATING CURVE

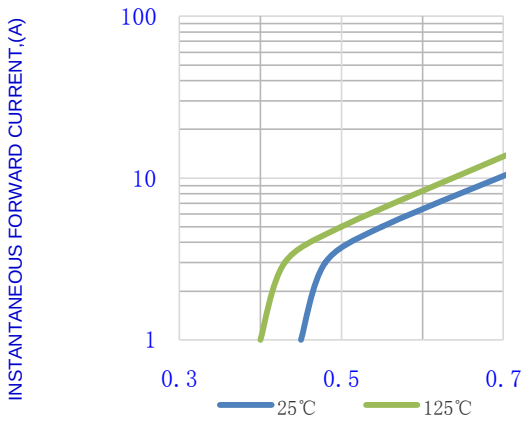


Fig.2- TYPICAL INSTANTANEOUS FORWARD

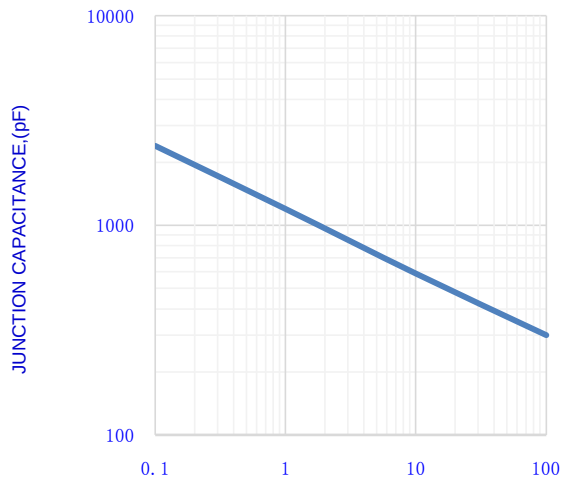


Fig.3- TYPICAL JUNCTION CAPACITANCE

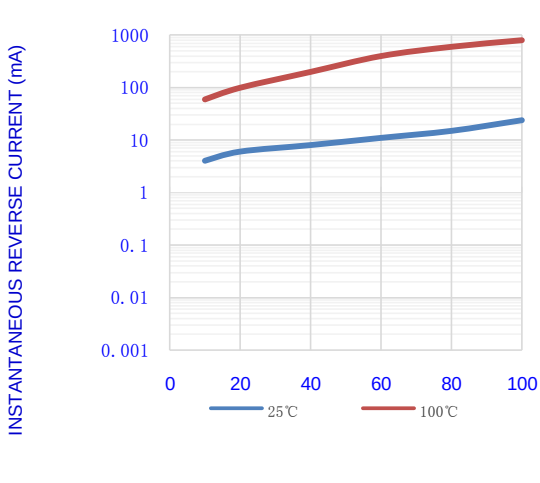


Fig.4- TYPICAL REVERSE CHARACTERISTICS

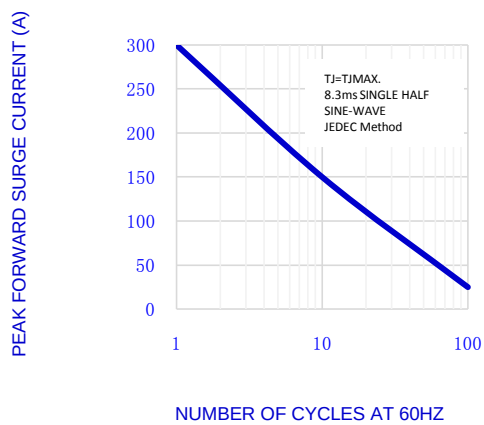


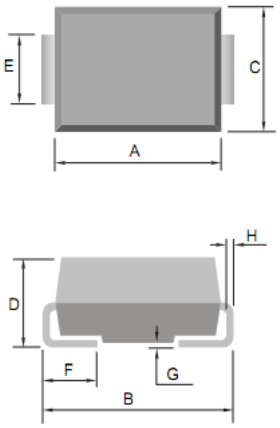
Fig.5-MAX. NON-REPETITIVE SURGE CURRENT

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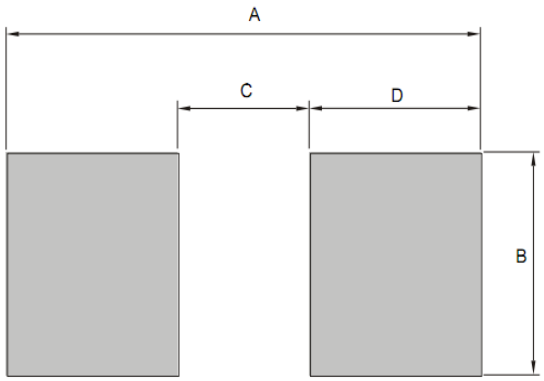
OUTLINE DRAWINGS



OUTLINE DIMENSIONS						
DIM	MILLIME TERS			INCHES		
	MIN.	TYP.	MAX.	MIN.	TYP.	MAX.
A	4.060	-	4.700	0.160	-	0.185
B	5.080	-	5.590	0.200	-	0.220
C	3.300	-	3.940	0.130	-	0.155
D	2.130	-	2.440	0.083	-	0.096
E	1.910	-	2.110	0.075	-	0.083
F	0.760	-	1.270	0.030	-	0.050
G	0.051	-	0.203	0.002	-	0.008
H	0.152	-	0.305	0.006	-	0.012

DO-214AA(SMB)

MOUNTING PAD LAYOUT



OUTLINE DIMENSIONS						
DIM	MILLIME TERS			INCHES		
	MIN.	TYP.	MAX.	MIN.	TYP.	MAX.
A		6.340			0.25	
B		2.720			0.107	
C		1.760			0.069	
D		2.290			0.09	

Packing Information

Product code	Pack	Reel Size (mm)	Quantity (pcs/reel)	Carton Size L×W×H(mm)	Quantity (reek/carton)
DO-214AA(SMB)	T/R	Φ330	3000	364×364×360	16

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