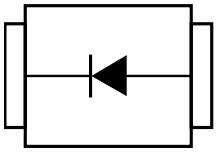
Feature

- Low cost
- Low leakage current
- Low forward voltage
- High current capability



Mechanical Characteristics

- Lead finish:100% matte Sn(Tin)
- Mounting position: Any
- Qualified max reflow temperature:260℃
- Device meets MSL 1 requirements
- Pure tin plating: 7 ~ 17 um
- Pin flatness：≤3mil

Maximum Ratings and Electrical characteristics

Single-phase, half-wave, 60 Hz, resistive or inductive load rating at 25℃, unless otherwise stated. For capacitive load, derate by 20%.

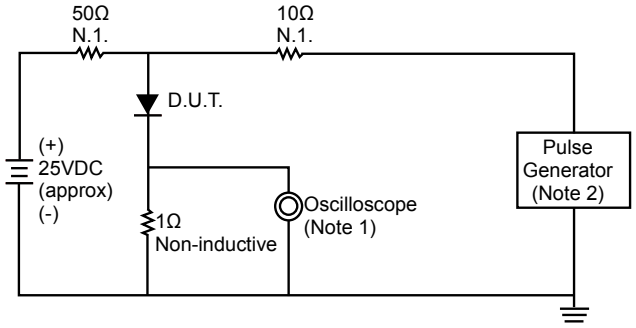
Parameter	Symbol	PSDB2AA	PSDB2AB	PSDB2AC	PSDB2AD	PSDB2AG	Units
Maximum recurrent peak reverse voltage	V_{RRM}	50	100	150	200	400	V
Maximum RMS voltage	V_{RMS}	35	70	105	140	210	V
Maximum DC blocking voltage	V_{DC}	50	100	150	200	400	V
Maximum average forward rectifies current @T_A=100℃	$I_{F(AV)}$	2.0					A
Peak forward surge current 8.3ms single half sine wave superimposed on rated load@ T_J=125℃	I_{FSM}	50.0					A
Maximum instantaneous forward voltage at 2.0A	V_F	0.95				1.25	V
Maximum reverse current @Ta=25℃ at rated DC blocking voltage @Ta=125℃	I_R	10 350					μA
Typical reverse recovery time (Note 1)	t_{rr}	35					ns
Typical junction capacitance (Note 2)	C_J	18					pF
Typical thermal resistance (Note 3)	$R_{\theta JA}$	40					℃/W
Operating and Storage Temperature	T_J,T_{STG}	-55 to +150					℃

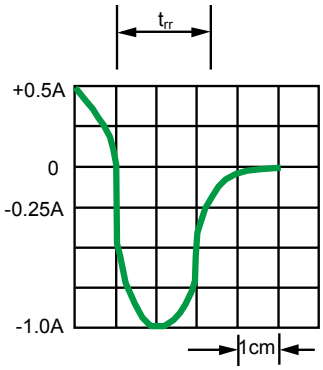
Note: 1.Measured with I_F=0.5A, I_R=1A, I_{rr}=0.25A.

2.Measured at 1.0MHz and applied reverse voltage of 4.0V DC.

3.Thermal resistance from junction to ambient and junction to lead P.C.B. mounted on 0.27'*0.27'(7.0*7.0mm2) copper pad areas.

Typical Characteristics





Note:1.Rise Time=7ns Max. Input impedance=1MΩ.22pF

2. Rise Time=10ns Max. Source Impedance=50Ω.

Set Time Base For 10/15 ns/cm

Fig.1 Test circuit diagram and reverse recovery time characteristic

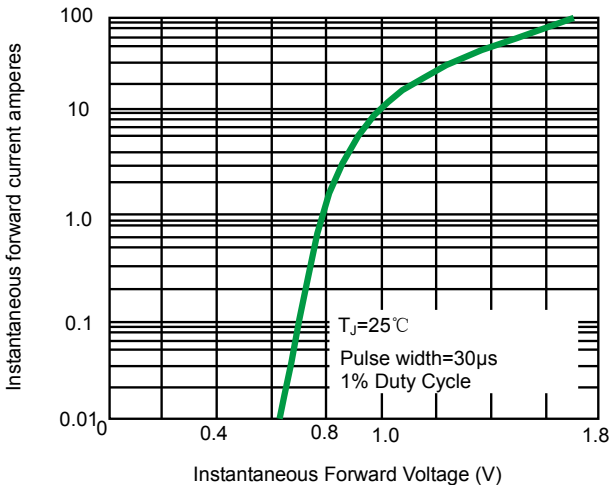


Fig 2.Maximum Forward Current Derating Curve

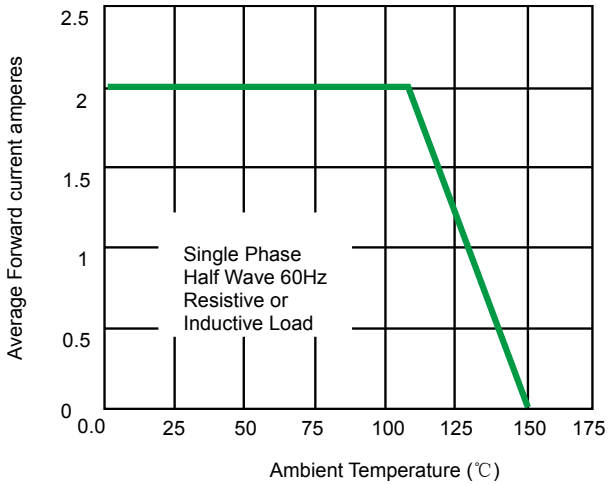


Fig 3.Forward derating curve

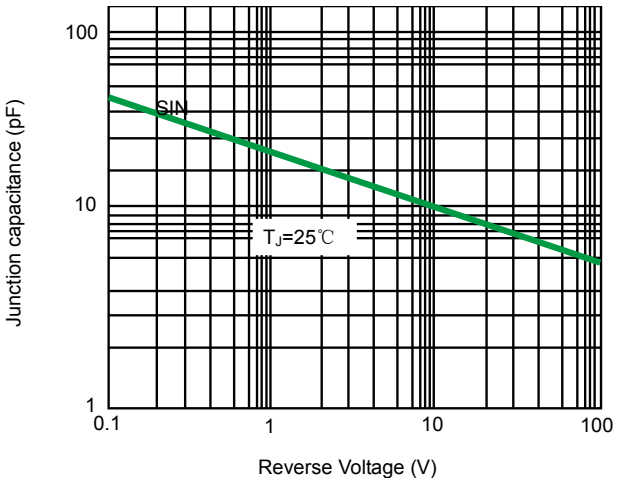


Fig 4.Typical junction capacitance

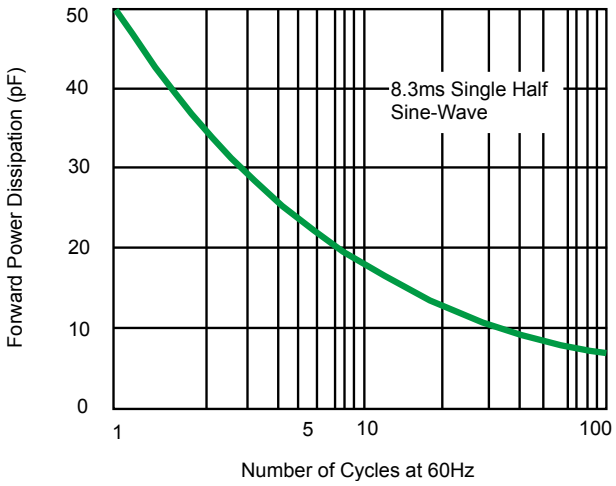
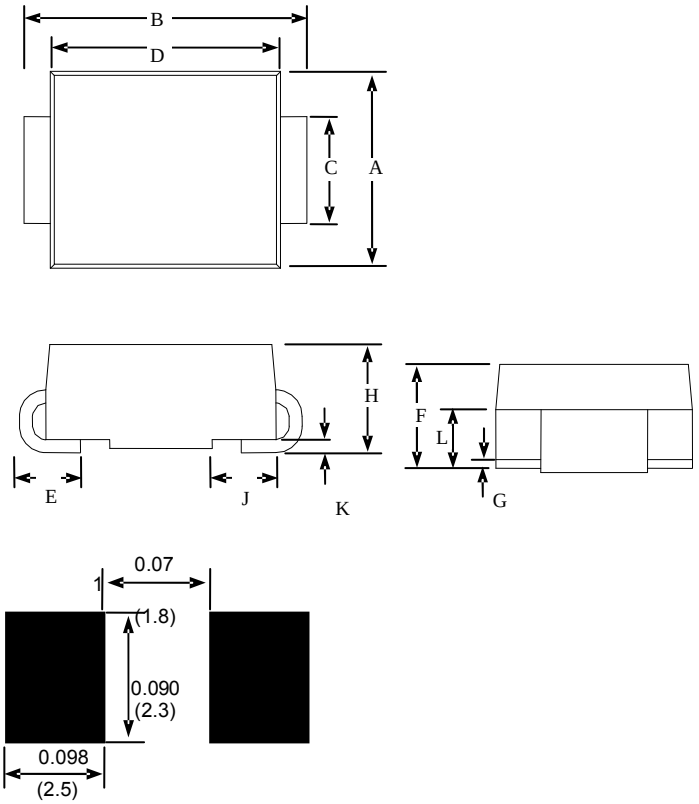


Fig 5.Peak forward Surge current

Product dimension(SMB)



DIMENSIONS ARE : INCHES / (Millimeters)

Dimension	Inches		Millimeters	
	MIN	MAX	MIN	MAX
A	0.134	0.155	3.40	3.94
B	0.205	0.220	5.21	5.59
C	0.075	0.083	1.90	2.11
D	0.166	0.185	4.22	4.70
E	0.036	0.056	0.91	1.42
F	0.073	0.087	1.85	2.10
G	0.002	0.008	0.05	0.20
H	0.077	0.094	1.95	2.40
J	0.043	0.053	1.09	1.35
K	0.008	0.014	0.20	0.35
L	0.039	0.049	0.99	1.24

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