

CURRENT 0.8 Ampere
 VOLTAGE RANG 50 to 1000 Volts

B1 THRU B7

Features

- Low profile space
- Ideal for automated placement
- Glass passivated chip junction
- Low forward voltage drop
- Low leakage current
- High forward surge capability
- High temperature soldering: 260°C/10 seconds at terminals
- Component in accordance to RoHS 2002/95/1 and WEEE 2002/96/EC



Mechanical Date

- **Case:** SOF2-4 Molded plastic over glass passivated chip
- **Terminals:** Solder plated, solderable per J-STD-002B and JESD22-B102D
- **Polarity:** Polarity symbols marked on body

Major Ratings and Characteristics

$I_{F(AV)}$	0.5 A, 0.8 A
V_{RRM}	50V to 1000V
I_{FSM}	20 A
I_R	5.0 μ A
V_F	1.1 V
$T_j \text{ max.}$	150 °C

Maximum Ratings & Thermal Characteristics ($T_A = 25^\circ\text{C}$ unless otherwise noted)

Items	Symbol	B1	B2	B3	B4	B5	B6	B7	UNIT
Maximum repetitive peak reverse voltage	V_{RRM}	50	100	200	400	600	800	1000	V
Maximum RMS voltage	V_{RMS}	35	70	140	280	420	560	700	V
Maximum DC blocking voltage	V_{DC}	50	100	200	400	600	800	1000	V
Maximum average forward rectified current at $T_A=30^\circ\text{C}$ -on glass-epoxy P.C.B. ⁽¹⁾ -on aluminum substrate ⁽²⁾	$I_{F(AV)}$	0.5 0.8							A
Peak forward surge current 8.3 ms single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	20							A
Thermal resistance from junction to ambient per leg	$R_{\theta JA}^{(1)}$ $R_{\theta JA}^{(2)}$	100 80							°C/W
Thermal resistance from junction to lead per leg ⁽¹⁾	$R_{\theta JL}$	30							°C/W
Operating junction and storage temperature range	T_J, T_{STG}	-55 to +150							°C

Note 1: On glass epoxy P.C.B. mounted on 0.06×0.04" (1.5×1.1mm) pads

Note 2: On aluminum substrate P.C.B. with an area of 0.8×0.8" (20×20mm) mounted on 0.06×0.04" (1.5×1.1mm) solder pad

Electrical Characteristics ($T_A = 25^\circ\text{C}$ unless otherwise noted)

Items	Test conditions	Symbol	Min	Type	Max	UNIT
Instantaneous forward voltage per leg	$I_F=0.4\text{A}^{(3)}$	V_F	-	0.96	1.10	V
Reverse current per leg	$V_R=V_{DC}$ $T_J=25^\circ\text{C}$ $T_J=125^\circ\text{C}$	I_R	-	-	5 100	μ A

Note 3: Pulse test:300 μ s pulse width,1% duty cycle.

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Rating and Characteristic Curves (TA=25°C Unless otherwise noted)

Fig.1 Forward Current Derating Curve

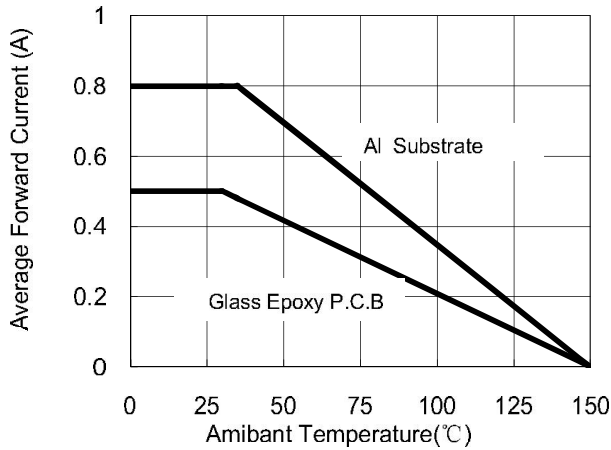


Fig.2 Maximum Non-Repetitive Peak Forward Surge Current

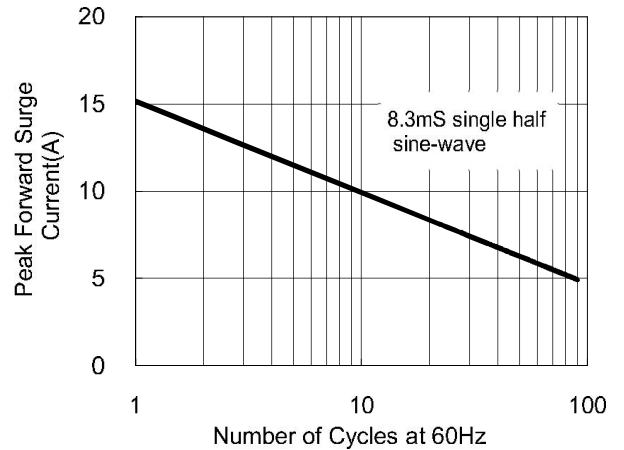


Fig.3 Typical Instantaneous Forward Characteristics

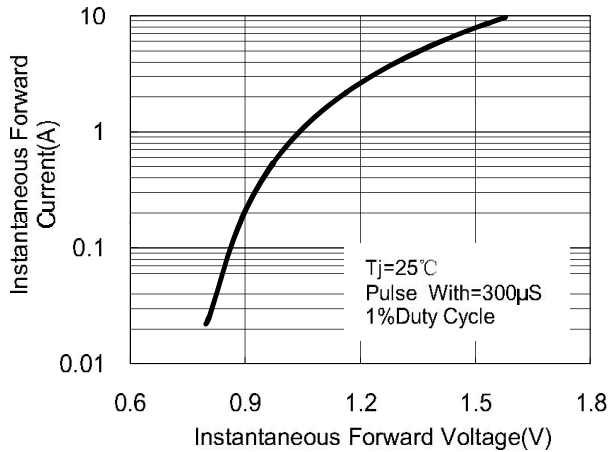
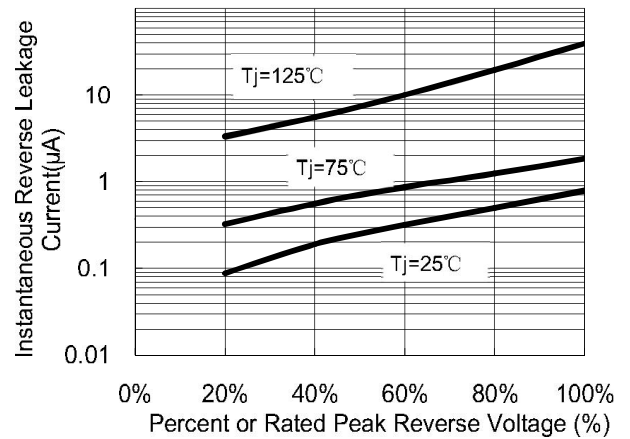


Fig.4 Typical Reverse Leakage Characteristics



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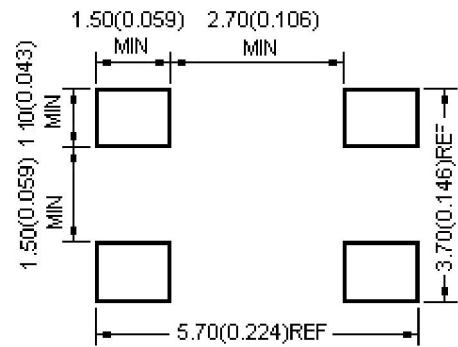
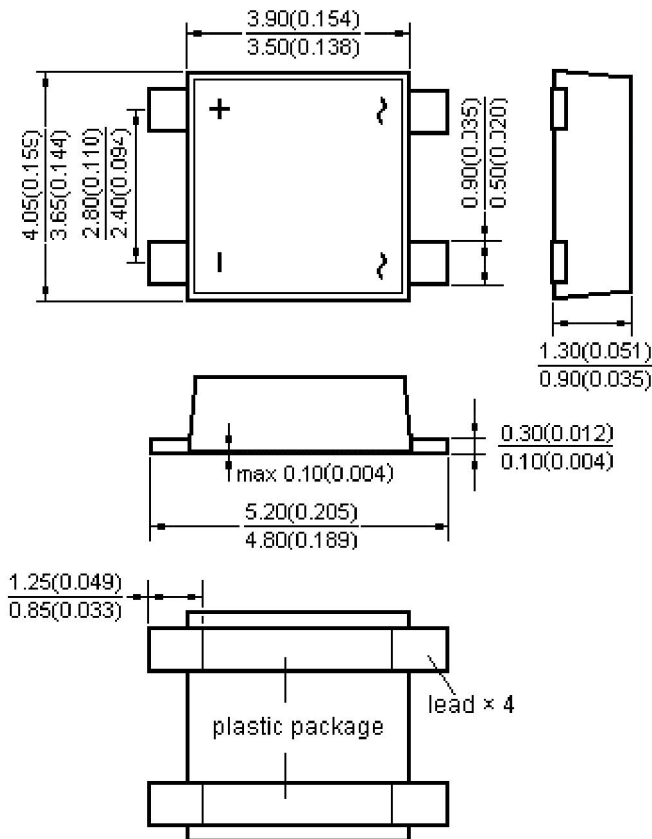
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Package Outline

Soldering Pad

SOF2-4

SOF2-4



Dimensions in millimeters and (Inches)

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