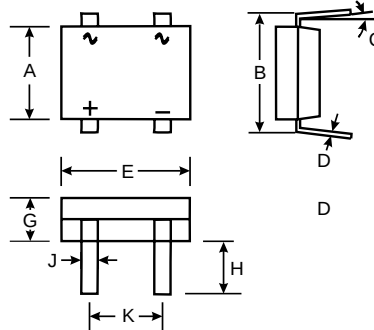


Features

- Glass Passivated Die Construction
- Low Forward Voltage Drop
- High Current Capability
- High Surge Current Capability
- Designed for Surface Mount Application
- Plastic Material – UL Flammability 94V-O



1Z(THD)		
Dim	Min	Max
A	3.65	4.10
B	4.95	5.21
C	0	10°
D	0.15	0.41
E	4.50	4.95
G	2.30	2.70
H	2.54	
J	0.43	0.74
K	2.41	2.67
All Dimensions in mm		

Mechanical Data

- Case: 1Z (THD), Molded Plastic
- Terminals: Plated Leads Solderable per MIL-STD-202, Method 208
- Polarity: As Marked on Case
- Weight: 0.22 grams (approx.)
- Mounting Position: Any
- Marking: Type Number
- **Lead Free: For RoHS / Lead Free Version**

Maximum Ratings and Electrical Characteristics @ $T_A=25^{\circ}\text{C}$ unless otherwise specified

Single Phase, half wave, 60Hz, resistive or inductive load.
For capacitive load, derate current by 20%.

Characteristic	Symbol	S1ZB 05	S1ZB 10	S1ZB 20	S1ZB 40	S1ZB 60	S1ZB 80	S1ZB 100	Unit
Device marking code		Z05	Z10	Z20	Z40	Z60	Z80	Z100	
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V_{RRM} V_{RWM} V_R	50	100	200	400	600	800	1000	V
RMS Reverse Voltage	$V_R(RMS)$	35	70	140	280	420	560	700	V
Average Rectified Output Current (Note 1) @ $T_A = 40^{\circ}\text{C}$ Average Rectified Output Current (Note 2) @ $T_A = 40^{\circ}\text{C}$	I_o	0.8							A
Non-Repetitive Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	30							A
I^2t Rating for Fusing ($t < 8.3\text{ms}$)	I^2t	5.0							A^2s
Forward Voltage per element @ $I_F = 0.5\text{A}$	V_{FM}	1.0							V
Peak Reverse Current @ $T_A = 25^{\circ}\text{C}$ At Rated DC Blocking Voltage @ $T_A = 125^{\circ}\text{C}$	I_{RM}	5.0 500							μA
Typical Junction Capacitance per leg (Note 3)	C_j	13							pF
Typical Thermal Resistance per leg (Note 1)	$R_{\theta JA}$ $R_{\theta JL}$	70 20							$^{\circ}\text{C/W}$
Operating and Storage Temperature Range	T_j, T_{STG}	-55 to +150							$^{\circ}\text{C}$

Note: 1. Mounted on glass epoxy PC board with 1.3mm^2 solder pad.
2. Mounted on aluminum substrate PC board with 1.3mm^2 solder pad.
3. Measured at 1.0 MHz and applied reverse voltage of 4.0V D.C.

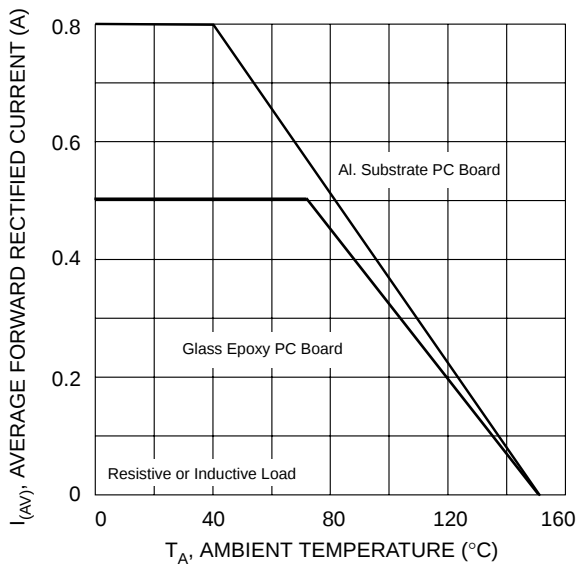


Fig. 1 Output Current Derating Curve

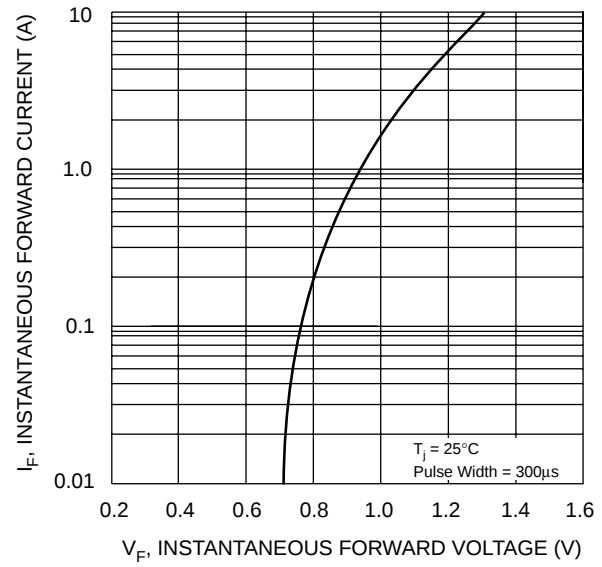


Fig. 2 Typical Forward Characteristics (per leg)

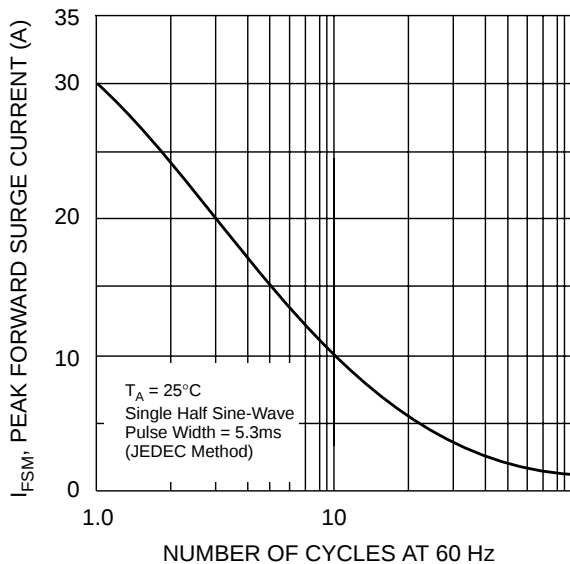


Fig. 3 Maximum Peak Forward Surge Current (per leg)

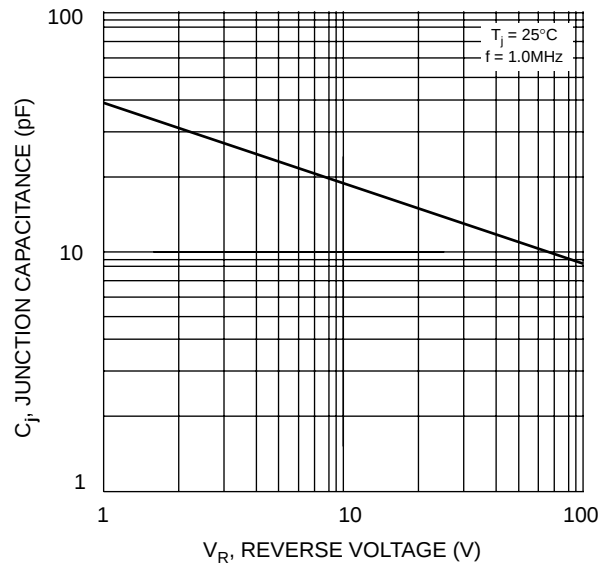


Fig. 4 Typical Junction Capacitance

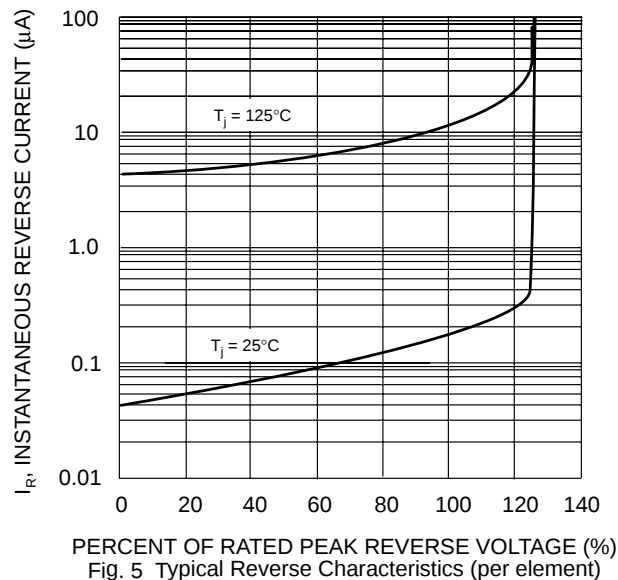


Fig. 5 Typical Reverse Characteristics (per element)