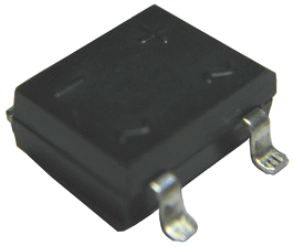
Microsemi Shanghai

SDB103 thru SDB107



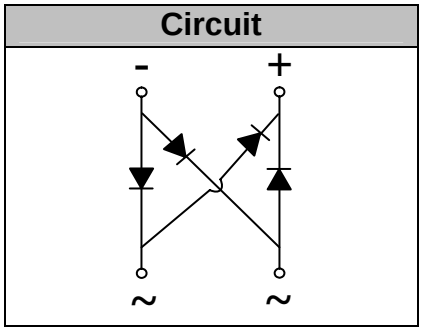
Glass Passivated Single Phase Bridge Rectifiers

Reverse Voltage 200 to 1000V
Forward Current 1.0 Amp

Features

- Glass passivated die construction
- Ideal for automatic insertion
- Plastic material used carries UL flammability recognition 94V-0
- High surge current capability

Circuit



Mechanical Data

Case: Molded plastic case
Terminals: Plated leads solderable per MIL-STD-750, Method 2026
Polarity: Marked on Body
Mounting Position: Any

Module Type

TYPE	V_{RRM}	V_{RSM}
SDB103	200V	300V
SDB104	400V	500V
SDB105	600V	700V
SDB106	800V	900V
SDB107	1000V	1100V

Maximum Ratings and Thermal Characteristics (TA = 25℃ unless otherwise noted)

Symbol	Conditions	Values	Units
$I_{F(AV)}$	Maximum average forward output rectified current Tc =40℃	1.0	A
I_{FSM}	Peak forward surge current single half sine-wave superimposed on rated load (JEDEC Method)	30	A
i^2t	Rating for fusing (t<8.3ms)	3.7	A^2s
Visol	a.c.50HZ;r.m.s.;1min	2500	V
$R_{\theta JA}$ $R_{\theta JC}$	Maximum thermal resistance per leg	40 15	℃/W
T_j, T_{STG}	Operating Junction and storage temperature range	-55 to +150	℃
Weight	Approximate Weight	0.4	g

Electrical Characteristics (TA = 25℃ unless otherwise noted)

Symbol	Conditions	Values	Units
V_F	Maximum Instantaneous Forward Voltage per leg I_{FM} =1.0A	1.1	V
I_R	Maximum DC reverse current at rated DC blocking voltage per leg T_A = 25℃ T_A = 125℃	5.0 500	μA
C_J	Typical Junction Capacitance per leg V_R=4.0V 1.0MHZ	25	pF

Notes: (1) Thermal resistance from junction to ambient and from junction to lead mounted on P.C.B. with 0.47x0.47" (12 x12mm) copper pads.

Performance Curves

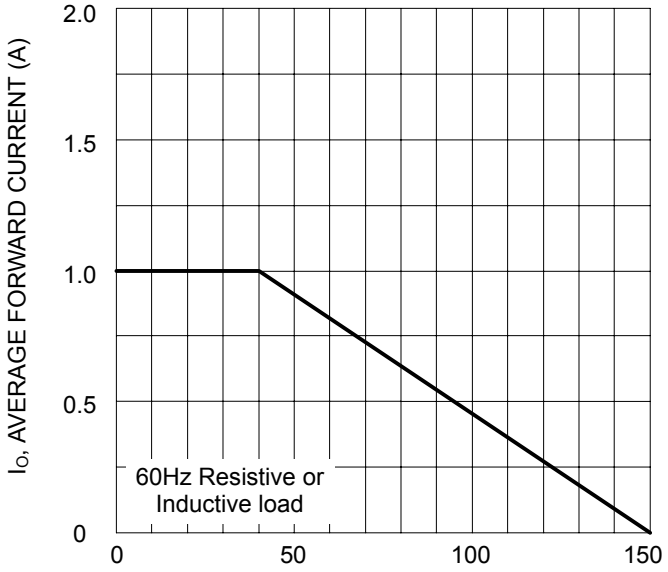


Fig.1 Output Current Derating Curve

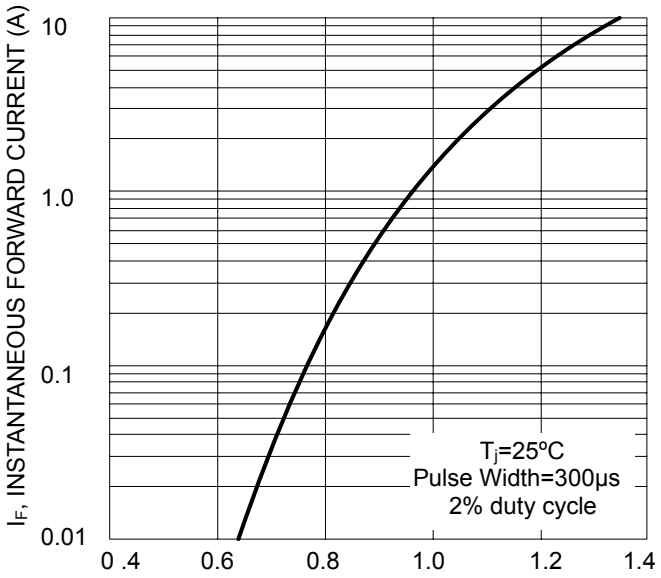


Fig.2 Typ Forward Characteristics (per element)

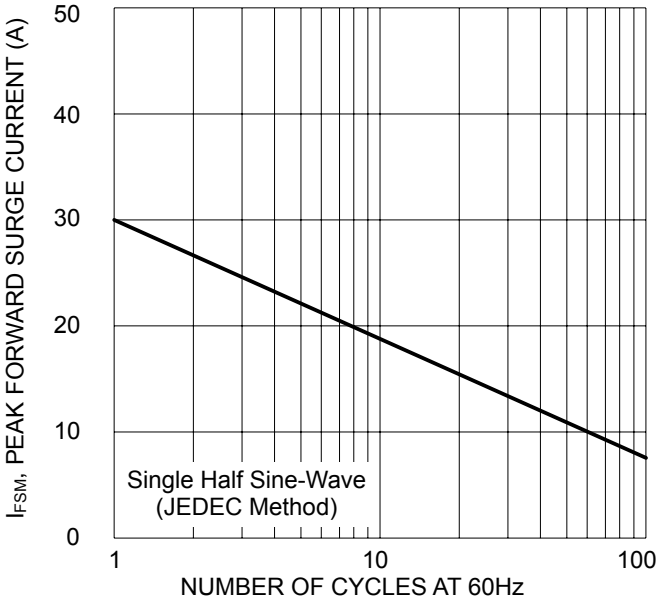


Fig.3 Max Non-Repetitive Peak Forward Surge Current

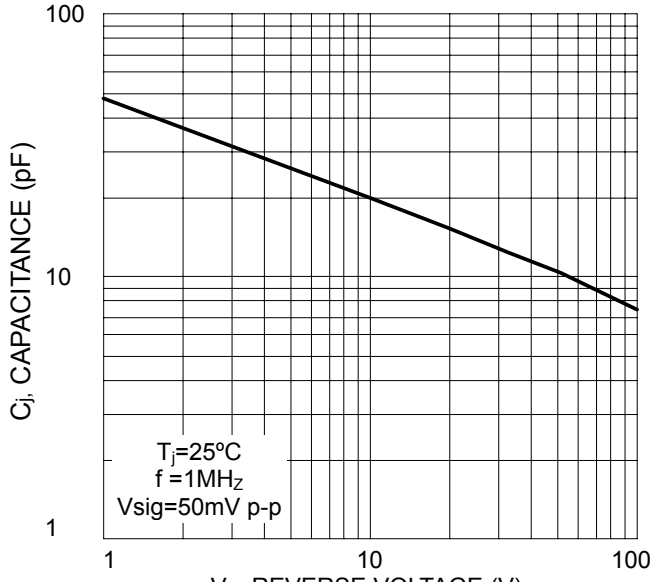


Fig.4 Typ Junction Capacitance (per element)

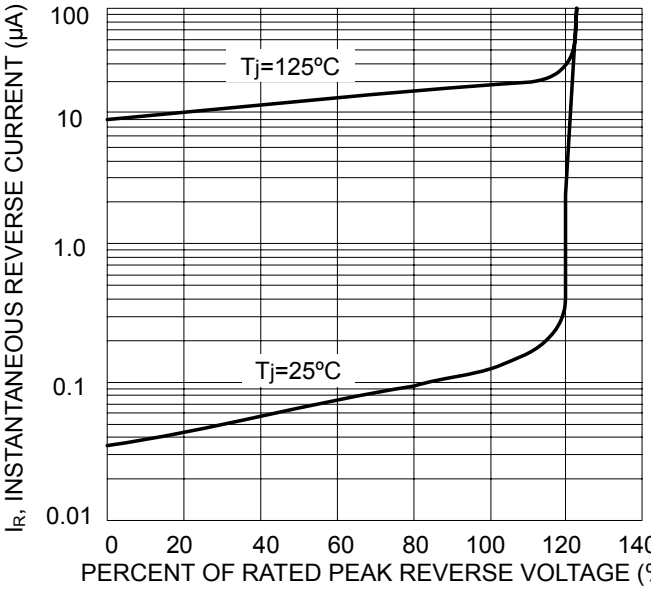
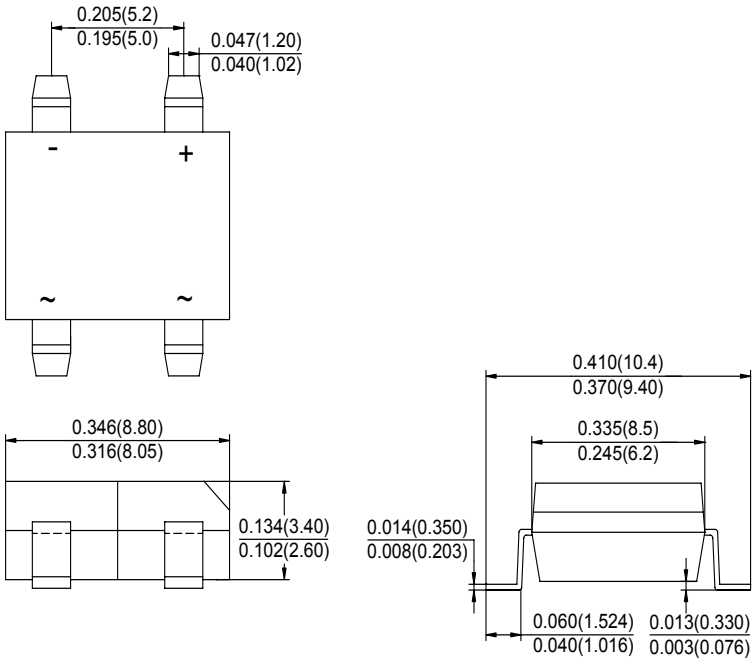


Fig.5 Typical Reverse Characteristics per element

Package Outline Information

CASE: SDB-1



Dimensions in inches (mm)