DB101(H) ----DB107(H)

SILICON BRIDGE RECTIFIER

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-0

Mechanical Data

- Case: DB-M, molded plastic
- Terminals: plated leads solderable per MIL-STD-202, Method 208
- Polarity: as marked on case Mounting position: Any
- Marking: type numberLead Free: For RoHS / Lead Free Version

Dimensions in inches and （millimeters）
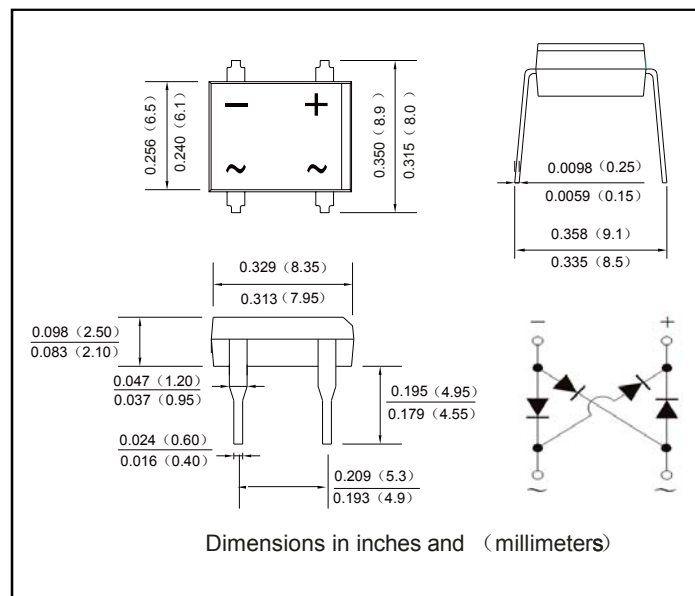
Maximum Ratings and Electrical Characteristics

Rating at 25℃ ambient temperature unless otherwise specified.   Single Phase, half wave, 60Hz, resistive or inductive load.
For capacitive load, derate current by 20%.

TYPE NUMBER (NOTE3)		DB101(H)	DB102(H)	DB103(H)	DB104(H)	DB105(H)	DB106(H)	DB107(H)	UNITS
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V_{RRM} V_{RWM} V_{DC}	50	100	200	400	600	800	1000	V
RMS Reverse Voltage	V_{RMS}	35	70	140	280	420	560	700	V
Average Rectified Output Current (Note 1)@T_C=100℃	$I_{F(AV)}$	1.0							A
Non-Repetitive Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	45							A
I^2t Rating for Fusing (t < 8.3ms)	I^2t	8.404							A^2s
Forward Voltage per element @I_F=1.0A	V_{FM}	1.0							V
Peak Reverse Current @T_A=25℃ At Rated DC Blocking Voltage @T_A=125℃	I_R	5.0 200							uA
Typical Junction Capacitance per leg	C_J	25							pF
Typical Thermal Resistance per leg (Note 2)	$R_{\theta JA}$	40							℃/W
	$R_{\theta JL}$	15							
Operating and Storage Temperature Range	T_J,T_{STG}	-55to+150							℃

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

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Fig. 1 Output Current Derating Curve

I(AV), AVERAGE FORWARD RECTIFIED CURRENT (A)

T_C , CASE TEMPERATURE (°C)
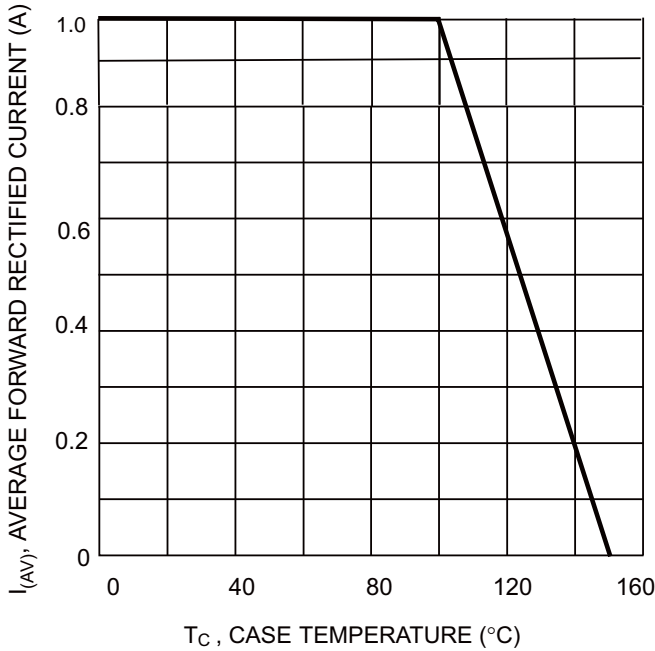
Fig. 2 Typical Forward Characteristics (per leg)

I_F, INSTANTANEOUS FORWARD CURRENT (A)

$T_A = 25°C$
Pulse Width = 300μs

V_F, INSTANTANEOUS FORWARD VOLTAGE (V)
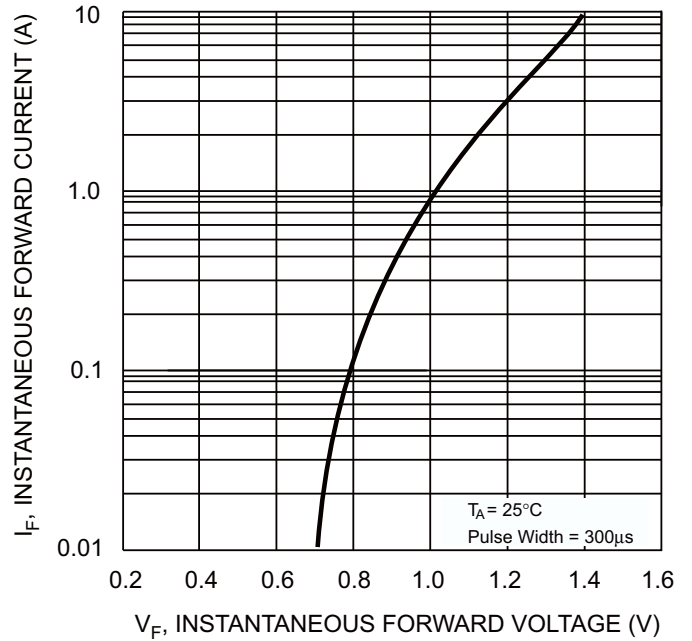
Fig. 3 Maximum Peak Forward Surge Current (per leg)

I_{FSM}, PEAK FORWARD SURGE CURRENT (A)

$T_A = 25°C$
Single Half Sine-Wave
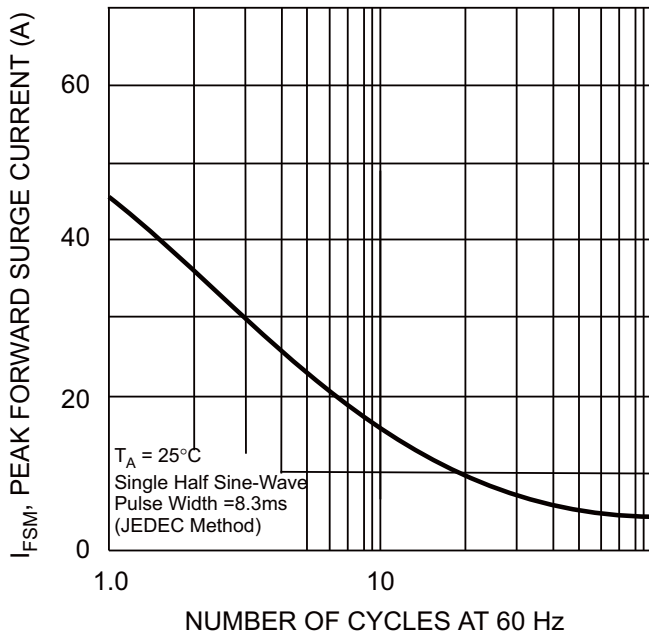Pulse Width =8.3ms
(JEDEC Method)

NUMBER OF CYCLES AT 60 Hz

Fig. 4 Typical Reverse Characteristics (per element)

I_R, INSTANTANEOUS REVERSE CURRENT (μA)

$T_J = 125°C$

$T_J = 25°C$

PERCENT OF RATED PEAK REVERSE VOLTAGE (%)