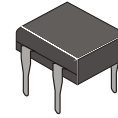


**VOLTAGE RANGE: 50 - 1000V**  
**CURRENT: 1.0 A**



### Features

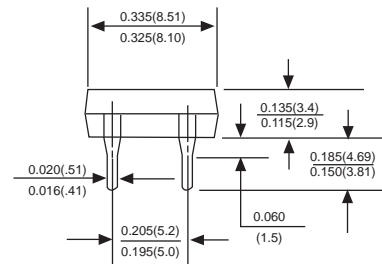
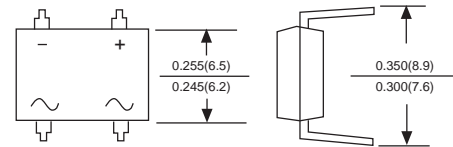
- Ideal for Printed Circuit Board
- Simple, Compact Structure for Trouble-free Performance
- Plastic Package - UL Flammability Classification 94V-0

### Mechanical Data

- Terminals: Tin Plated Leads Solderable per MIL-STD-202, Method 208
- Case: Transfer Molded Epoxy
- Mounting Position: Any
- Polarity: Polarity Symbols Marked on Body
- Approx. Weight: 1.0 grams



**DB**



*Dimensions in inches and (millimeters)*

### 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	DB101	DB102	DB103	DB104	DB105	DB106	DB107	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 output rectified current 0.06" (1.5mm) lead length at $T_A=40^\circ\text{C}$ (Note 2)	$I_{(AV)}$	1.0							A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	$I_{FSM}$	50.0							A
Rating for Fusing ( $t < 8.3\text{ms}$ )	$I^2t$	10							$\text{A}^2\text{s}$
Maximum instantaneous forward voltage drop per bridge element at 1.0A	$V_F$	1.1							V
Maximum DC reverse current $T_A=25^\circ\text{C}$ at rated DC blocking voltage $T_A=100^\circ\text{C}$	$I_R$	10							$\mu\text{A}$
		0.5							$\text{mA}$
Typical Junction Capacitance (Note 1)	$C_J$	25							$\text{pF}$
Typical Thermal Resistance (Note 2)	$R_{\theta JA}$	40							$^\circ\text{C}/\text{W}$
Operating junction temperature range	$T_J$	-65 to +150							$^\circ\text{C}$
storage temperature range	$T_{STG}$	-65 to +150							$^\circ\text{C}$

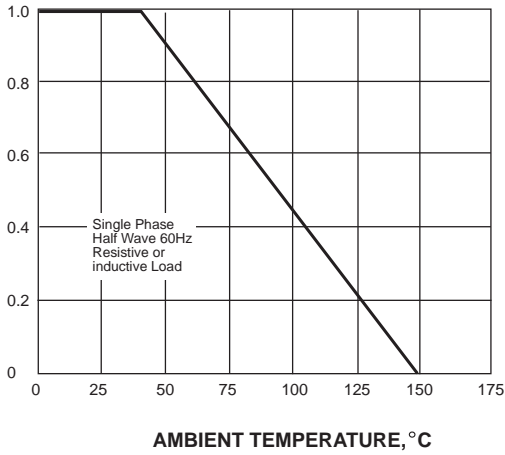
NOTES:  
 1. Measured at 1.0 MHz and applied reverse voltage of 4.0 Volts.  
 2. Unit mounted on P.C. board with 0.51" x 0.51" (13x13mm) copper pads.



**RATINGS AND CHARACTERISTIC CURVES DB101 THRU DB107**

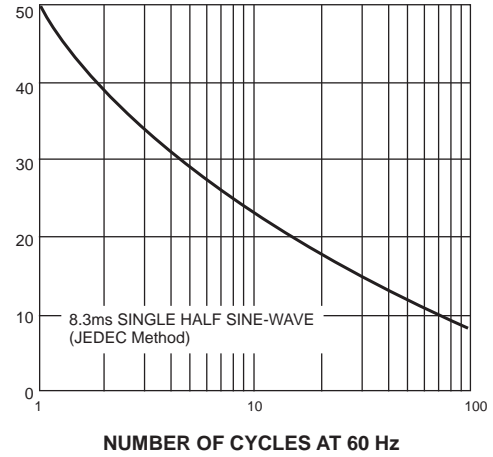
AVERAGE FORWARD RECTIFIED CURRENT, AMPERES

**FIG. 1- FORWARD CURRENT DERATING CURVE**

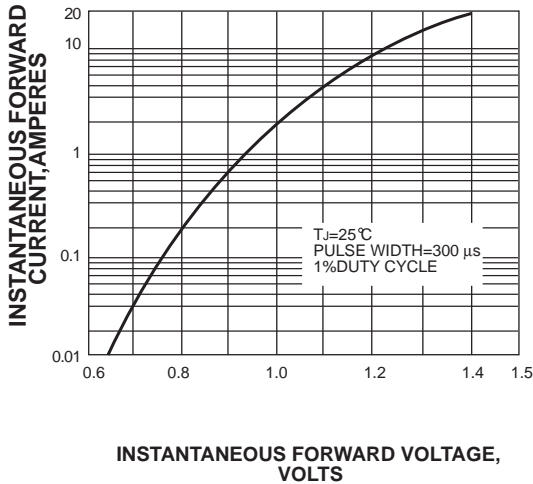


PEAK FORWARD SURGE CURRENT, AMPERES

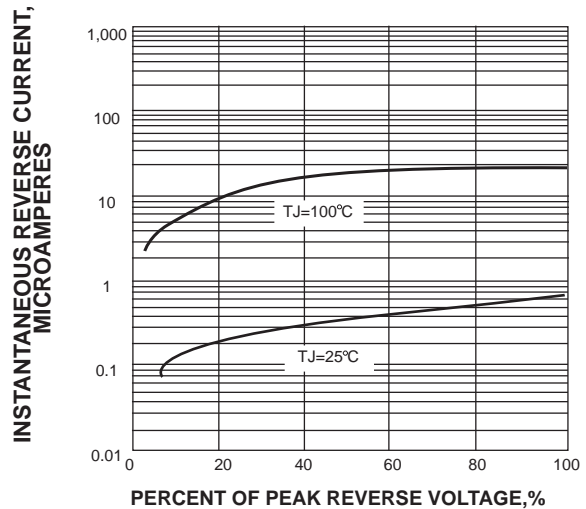
**FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT**



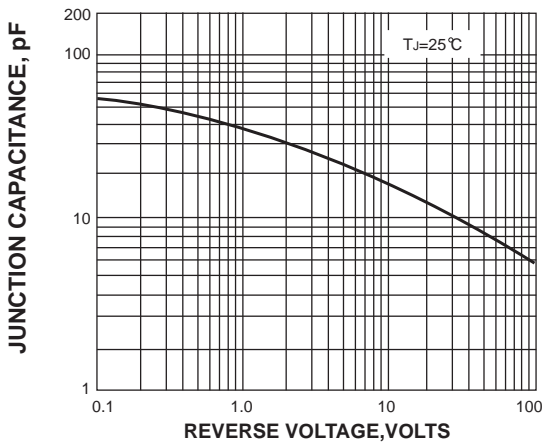
**FIG. 3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS**



**FIG. 4-TYPICAL REVERSE CHARACTERISTICS**



**FIG. 5-TYPICAL JUNCTION CAPACITANCE**



**FIG. 6-TYPICAL TRANSIENT THERMAL IMPEDANCE**

