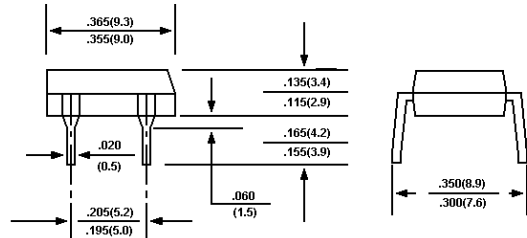


**SINGLE-PHASE BRIDGE RECTIFIER**  
**VOLTAGE RANGE 50 to 1000 Volts**  
**CURRENT 1.0 Ampere**

DB-1

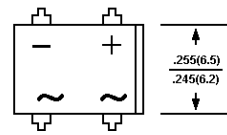
**FEATURES**

- \* Glass Passivated chip junction
- \* High forward surge current capability
- \* Ideal for printed circuit board
- \* High temperature soldering guaranteed:  
260°C/10 second at 5 lbs. (2.3kg) tension



**MECHANICAL DATA**

- \* Case: Transfer molded plastic
- \* Epoxy: UL94V-O rate flame retardant
- \* Terminals : Lead Solderable Per MIL-STD-202 method 208
- \* Polarity : As Marking on Body
- \* Mounting Position: Any
- \* Weight : 0.04 ounce, 1.0 gram



**MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS**

- \* Rating at 25 °C ambient temperature 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
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 Rectifier Forward Current (Note 1) @ $T_A=50$	$I_{O(AV)}$	1.0							A
Non-Repetitive Peak Surge Current 8.3 ms Single half sine-wave superimposed on rated load ( JEDEC Method)	$I_{FSM}$	50							A
Forward Voltage (per element) ( $I_F = 1.0$ Amp)	$V_{FM}$	1.1							V
Peak Reverse Current ( Rated DC Voltage, $T_C = 25$ ) ( Rated DC Voltage, $T_C = 125$ )	$I_R$	5.0 500							uA
Rating for Fusing( $t < 8.3$ ms)	$I^2t$	10							A <sup>2</sup> s
Typical Junction Capacitance per element (Note2)	$C_J$	25							pF
Typical Thermal Resistance (note 3)	$R_{\theta JA}$	40							k/W
Operating and Storage Temperature Range	$T_J, T_{stg}$	-65 to +150							

- Note: 1 Lead maintained at ambient temperature at a distance of 9.5 mm from the case.  
2. Measured at 1.0 MHz and applied reverse voltage of 4.0V D.C.  
3. Thermal resistance junction to ambient, mounted on PC board with 12 mm<sup>2</sup> copper pad.

# DB101 thru DB107

FIG-1 FORWARD CURRENT DERATING CURVE

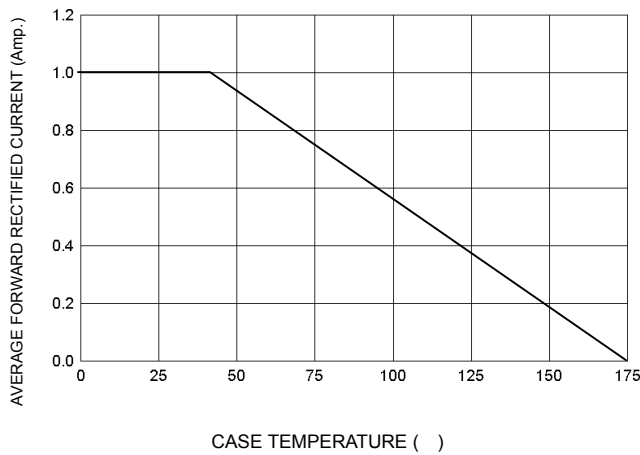


FIG-2 TYPICAL FORWARD CHARACTERISTICS

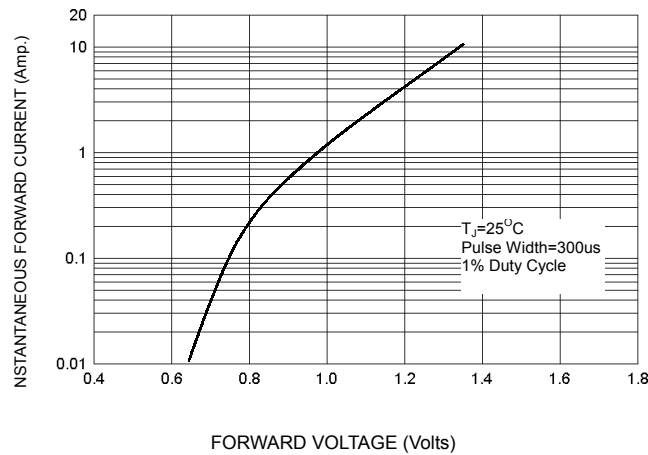


FIG-3 PEAK FORWARD SURGE CURRENT

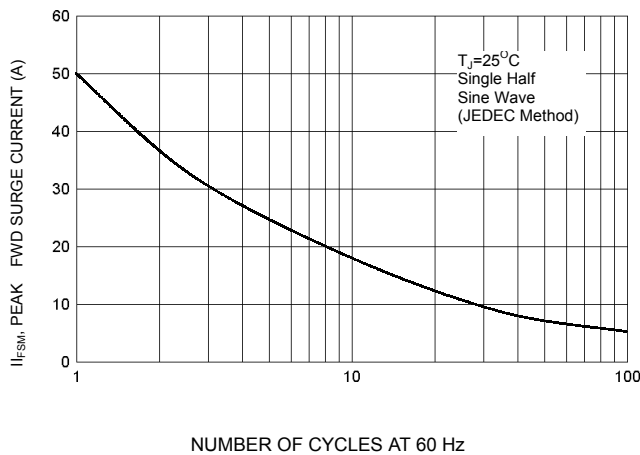


FIG-4 TYPICAL JUNCTION CAPACITANCE

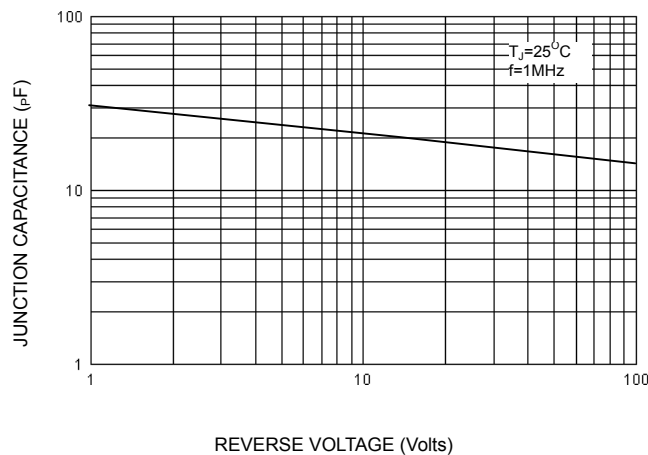
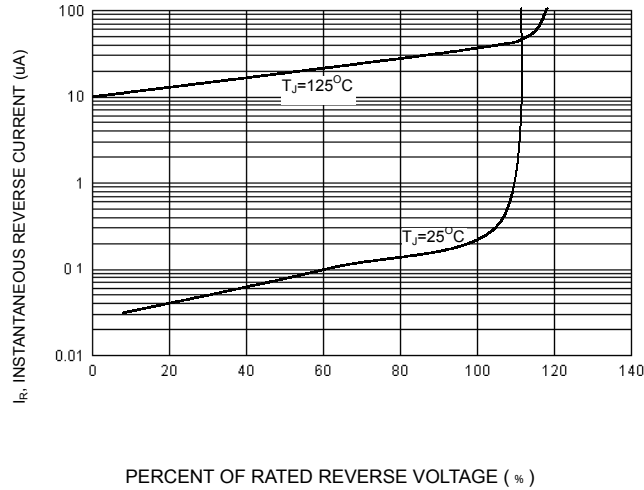


FIG-5 TYPICAL REVERSE CHARACTERISTICS



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