

VI. Bridge Rectifier

1.0A Glass Passivated Bridge Rectifier DB101G~DB107G

(Package: DB)

<p>FEATURES</p> <ul style="list-style-type: none"> • Rating to 1000V PRV • Ideal for printed circuit board • Low forward voltage drop, high current capability • Reliable low cost construction utilizing molded plastic technique results in inexpensive product • The plastic material has Underwriters Laboratory Flammability Classification 94V-0 <p>MECHANICAL DATA</p> <ul style="list-style-type: none"> • Polarity : As marked on body • Mounting position : Any • Weight : 0.02 ounces, 0.38 grams 	<p>Case: DB Dimensions in inches and (millimeters)</p>
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Ratings & Electrical Characteristics

Ratings at 25 °C ambient temperature unless otherwise specified.

Single phase half-wave 60 Hz, resistive or inductive load, for capacitive load current derate by 20%.

Characteristic	Symbol	DB 101G	DB 102G	DB 103G	DB 104G	DB 105G	DB 106G	DB 107G	Units
Maximum recurrent peak reverse voltage	V_{RRM}	50	100	200	400	600	800	1000	Volts
Maximum RMS voltage	V_{RMS}	35	70	140	280	420	560	700	Volts
Maximum DC blocking voltage	V_{DC}	50	100	200	400	600	800	1000	Volts
Maximum average forward rectified current @ $T_a = 40$	I_o	1.0							Amps
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	30							Amps
Maximum forward voltage at 1.0A DC	V_F	1.1							Volts
Maximum DC reverse current @ $T_j=25$ at rated DC blocking voltage @ $T_j=125$	I_R	10 500							μA
I^2t Rating for Fusing ($t < 8.3ms$)	I^2t	10.4							A^2s
Typical junction capacitance per element (Note 1)	C_j	25							PF
Typical thermal resistance (Note 2)	R_{th-JA}	40							/ W
Operating temperature range	T_j	-55 to +150							
Storage temperature range	T_{stg}	-55 to +150							

Note:

1. Measured at 1.0MHz and applied reverse voltage of 4.0V DC

2. Thermal resistance from junction to ambient mounted on P.C.B with 0.5*0.5" (13*13mm) copper pads

Ratings and Characteristic Curves of DB101G~DB107G

FIG.1-FORWARD CURRENT DERATING CURVE

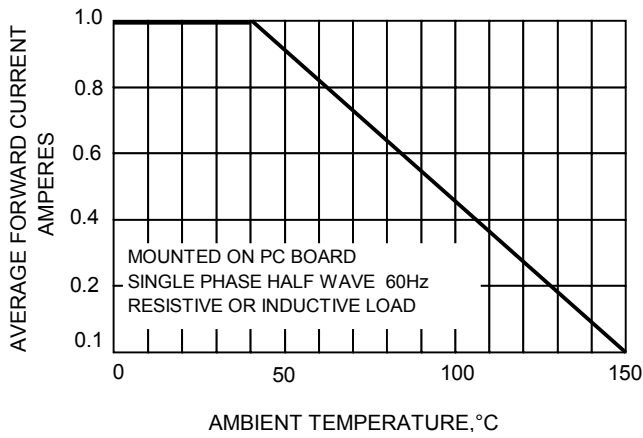


FIG.2-MAXIMUM NON-REPETITIVE SURGE CURRENT

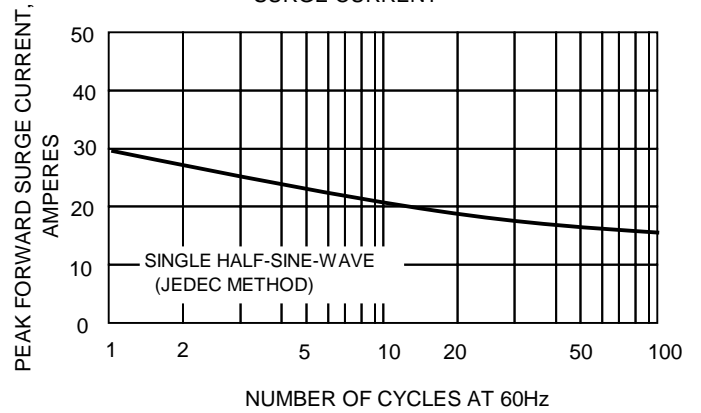


FIG.3-TYPICAL JUNCTION CAPACITANCE

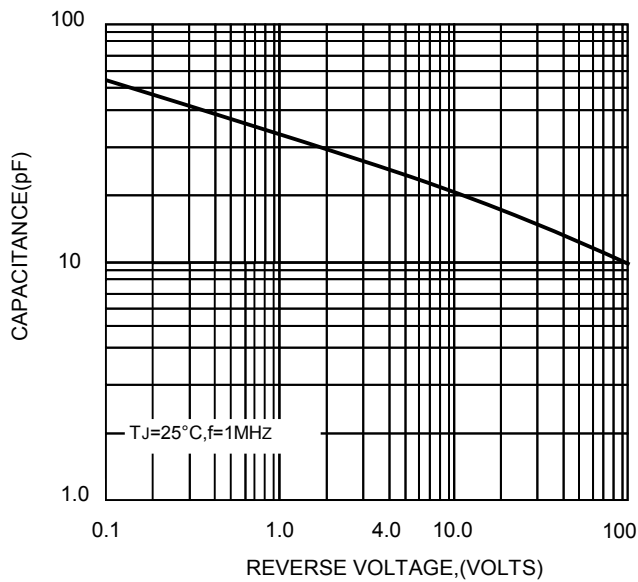


FIG.4-TYPICAL FORWARD CHARACTERISTICS

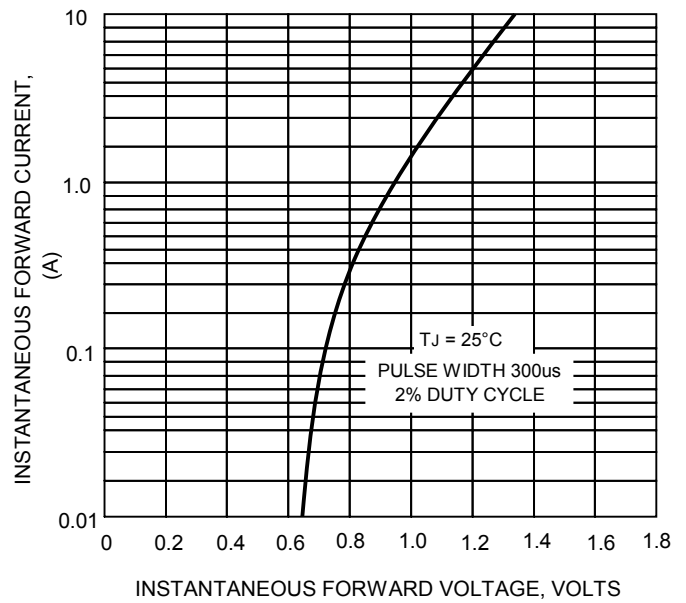


FIG.5-TYPICAL REVERSE CHARACTERISTICS

