America Semiconductor

Silicon Bridge Rectifier

DB101G thru DB104G

V_{RRM} = 50 V - 1000 V

I_F =1 A

Features

- Types up to 1000 V V_{RRM}
- Ideal for printed circuit board
- High surge current capability
- High temperature soldering guaranteed: 250^{0}C/ 10 seconds
- Small size, simple installation

DB Package

Mechanical Data

Case: Molded plastic

Polarity: Polarity symbols marked on body

Mounting position: Any

Terminals: Plated leads, solderable per MIL-STD-202 Method 208 guaranteed

Maximum ratings, at T_j = 25 °C, unless otherwise specified

Parameter	Symbol	Conditions	DB101G	DB102G	DB103G	DB104G	Unit
Repetitive peak reverse voltage	V_{RRM}		50	100	200	400	V
RMS reverse voltage	V_{RMS}		35	70	140	280	V
DC blocking voltage	V_{DC}		50	100	200	400	V
Continuous forward current	I_F	$T_C \leq 40$ °C	1	1	1	1	A
Surge non-repetitive forward current, Half Sine Wave	$I_{F,SM}$	T_C = 25 °C, t_p = 8.3 ms	30	30	30	30	A
Operating temperature	T_j		-65 to 150	-65 to 150	-65 to 150	-65 to 150	°C
Storage temperature	T_{stg}		-65 to 150	-65 to 150	-65 to 150	-65 to 150	°C

Electrical characteristics, at Tj = 25 °C, unless otherwise specified

Parameter	Symbol	Conditions	DB101G	DB102G	DB103G	DB104G	Unit
Diode forward voltage	V_F	I_F = 1 A, T_j = 25 °C	1.1	1.1	1.1	1.1	V
Reverse current	I_R	V_R = 50 V, T_j = 25 °C V_R = 50 V, T_j = 125 °C	5 500	5 500	5 500	5 500	µA
Thermal characteristics							
Thermal resistance, junction - case	R_{thJC}		20.00	20.00	20.00	20.00	°C/W

FIG.1-DERATING CURVE FOR OUTPUT RCTIFIER CURRENT

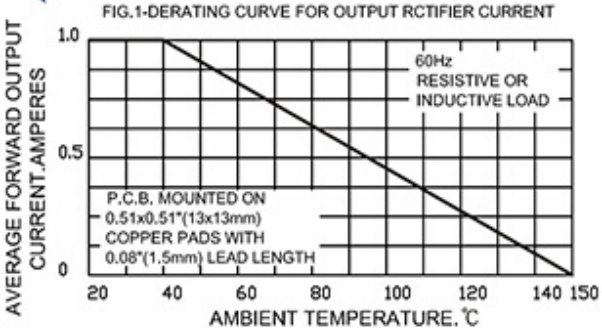

FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

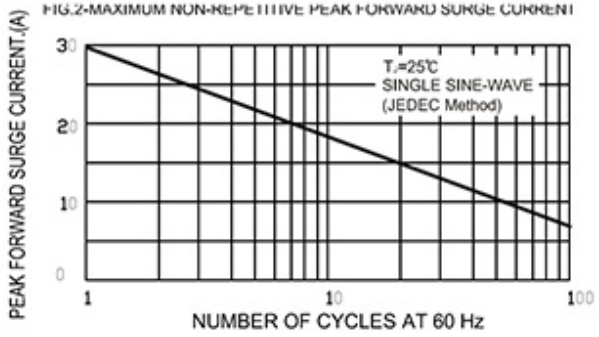

FIG.3- TYPICAL FORWARD CHARACTERISTICS PER BRIDGE ELEMENT

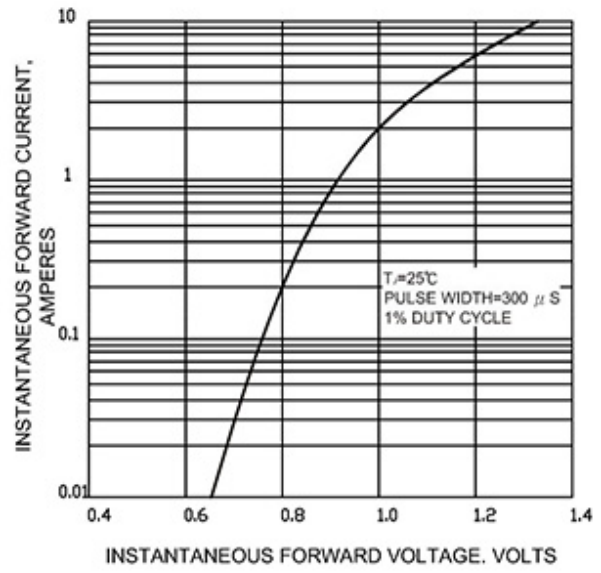

FIG.4-TYPICAL REVERSE CHARACTERISTICS PER BRIDGE ELEMENT

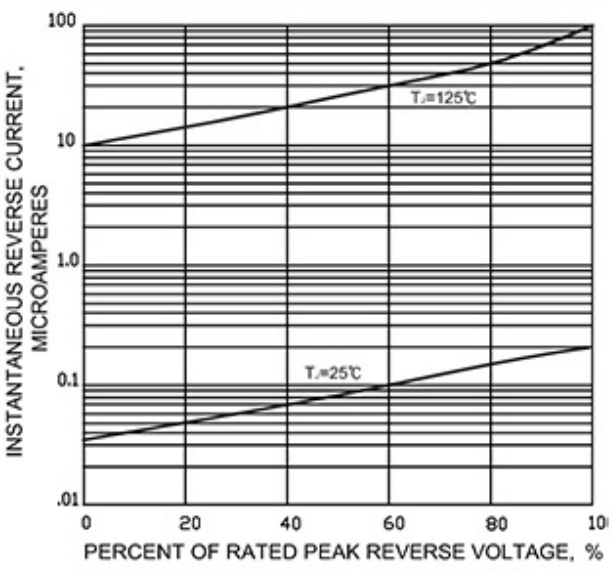
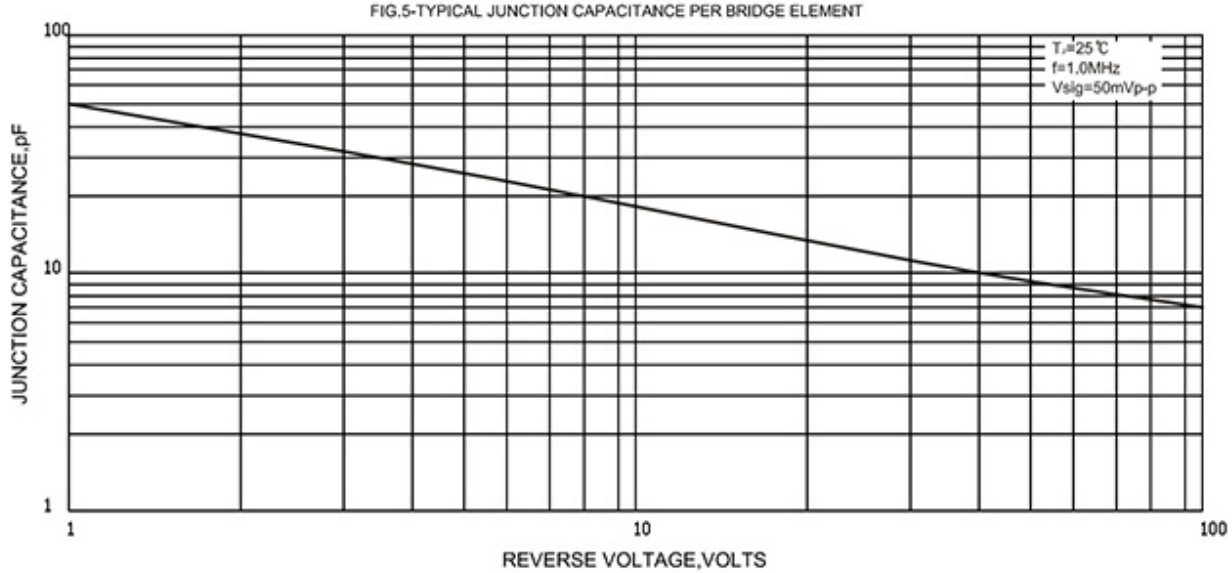
FIG.5-TYPICAL JUNCTION CAPACITANCE PER BRIDGE ELEMENT