GeneSiC™ SEMICONDUCTOR

Single Phase Glass Passivated Silicon Bridge Rectifier

V_{RRM} = 600 V - 1000 V

I_O = 1 A

Features

- Ideal for printed circuit board
- Reliable low cost construction utilizing molded plastic technique
- High surge current capability
- Small size, simple installation
- Types from 600 V up to 1000 V V_{RRM}
- Not ESD Sensitive

DB Package

RoHS COMPLIANT

REACH COMPLIANCE

Mechanical Data

Case: Molded plastic

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

Polarity: Polarrity symbols marked on the body

Mounting position: Any
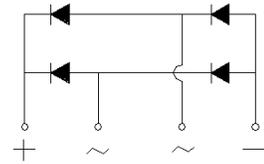
Maximum ratings at Tc = 25 °C, unless otherwise specified

| Parameter	Symbol	Conditions	DB105G	DB106G	DB107G	Unit
Repetitive peak reverse voltage	V_{RRM}		600	800	1000	V
RMS reverse voltage	V_{RMS}		420	560	700	V
DC blocking voltage	V_{DC}		600	800	1000	V
Operating temperature	T_j		-55 to 150	-55 to 150	-55 to 150	°C
Storage temperature	T_{stg}		-55 to 150	-55 to 150	-55 to 150	°C

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

Single phase, half sine wave, 60 Hz, resistive or inductive load

For capacitive load derate current by 20%

Parameter	Symbol	Conditions	DB105G	DB106G	DB107G	Unit
Maximum average forward rectified current	I_O	T_a = 40 °C	1.0	1.0	1.0	A
Peak forward surge current	I_{FSM}	t_p = 8.3 ms, half sine	30	30	30	A
Maximum instantaneous forward voltage drop	V_F	I_F = 1.0 A	1.1	1.1	1.1	V
Maximum DC reverse current at rated DC blocking voltage	I_R	T_a = 25 °C	5	5	5	µA
		T_a = 125 °C	500	500	500	
Typical junction capacitance	C_j		25	25	25	pF
Typical thermal resistance	$R_{\Theta JC}$		20	20	20	°C/W

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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 LEAKAGE CHARACTERISTICS PER BRIDGE ELEMENT

FIG.5-TYPICAL JUNCTION CAPACITANCE PER BRIDGE ELEMENT
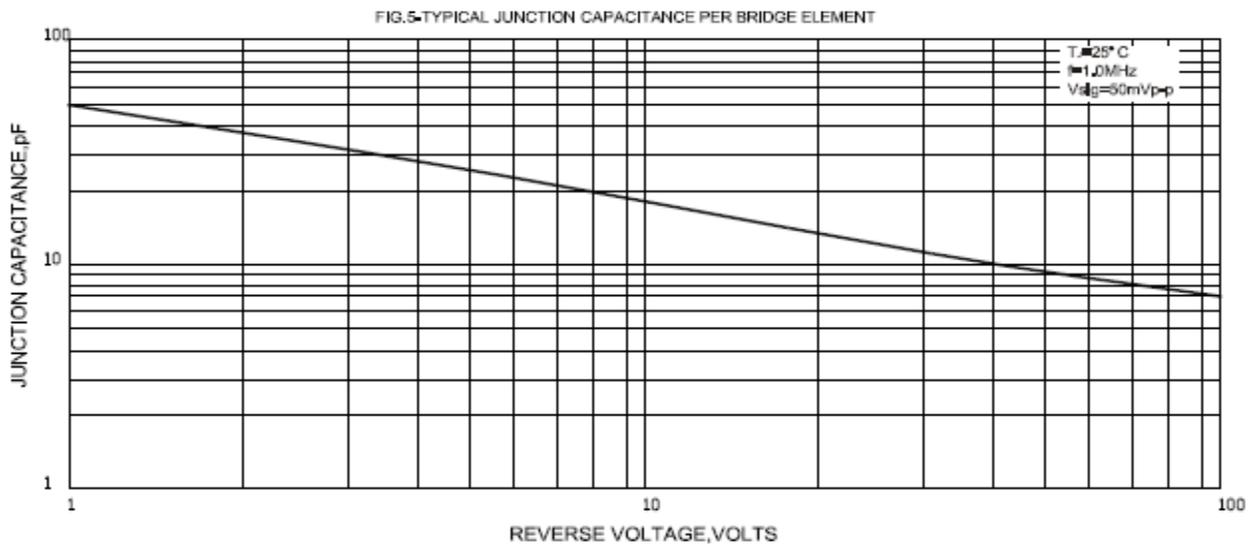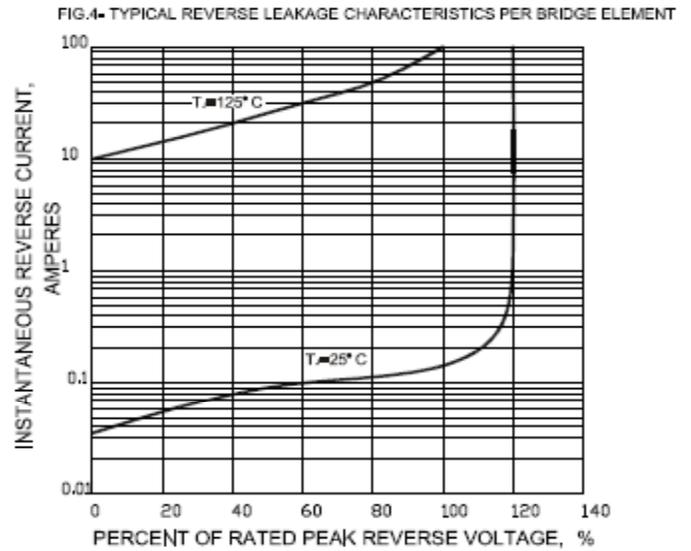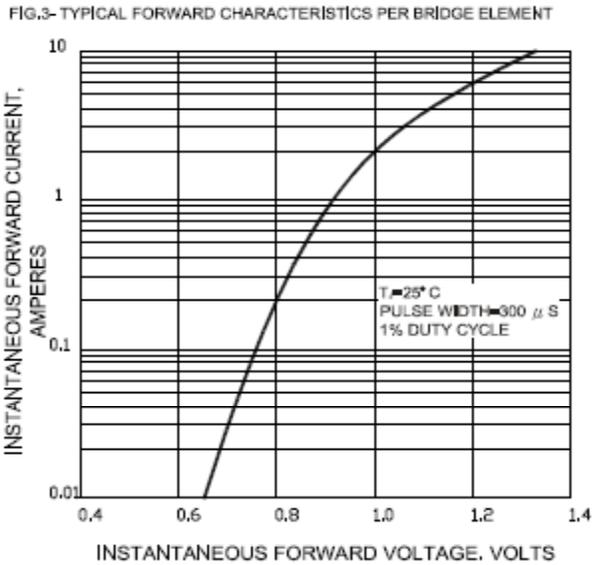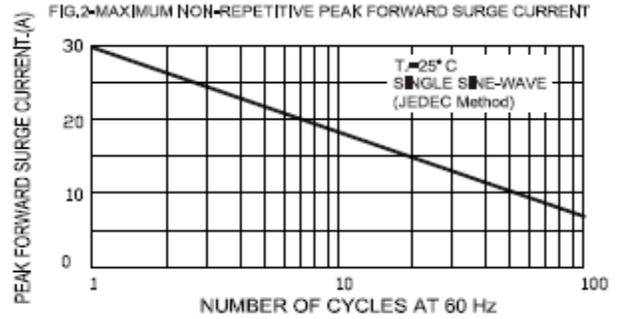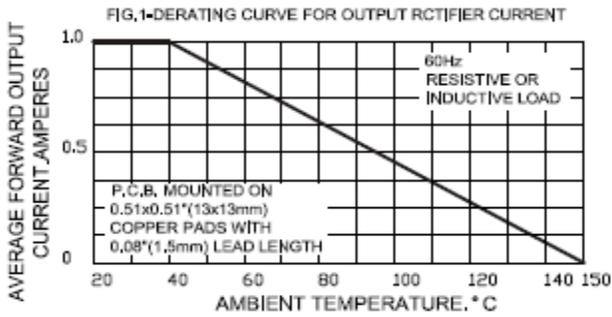
Package dimensions and terminal configuration

Product is marked with part number and terminal configuration.

DB

Dimensions in inches and (millimeters)