GeneSiC™ SEMICONDUCTOR
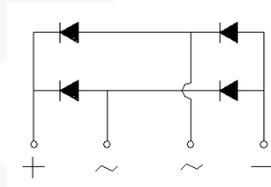
Single Phase Silicon Bridge Rectifier

V_{RRM} = 50 V - 400 V

I_O = 6 A

Features

• Low forward voltage drop
• Low leakage current
• Types from 50 V up to 400 V V_{RRM}
• Not ESD Sensitive

BR-6 Package

RoHS COMPLIANT

REACH COMPLIANCE

Mechanical Data

Case: Molded plastic body
Mounting: Hole thru for #6 screw
Mounting position: Any
Lead: As marked

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

Parameter	Symbol	Conditions	BR605	BR61	BR62	BR64	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
Operating temperature	T_j		-65 to 125	-65 to 125	-65 to 125	-65 to 125	°C
Storage temperature	T_{stg}		-65 to 150	-65 to 150	-65 to 150	-65 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	BR605	BR61	BR62	BR64	Unit
Maximum average forward rectified current	I_O	T_c = 75 °C	6.0	6.0	6.0	6.0	A
Peak forward surge current	I_{FSM}	t_p = 8.3 ms, half sine	200	200	200	200	A
Maximum instantaneous forward voltage drop per bridge element	V_F	I_F = 3.0 A	1.0	1.0	1.0	1.0	V
Maximum DC reverse current at rated DC blocking voltage	I_R	T_a = 25 °C	10	10	10	10	µA
		T_a = 100 °C	200	200	200	200	

GeneSiC™
SEMICONDUCTOR
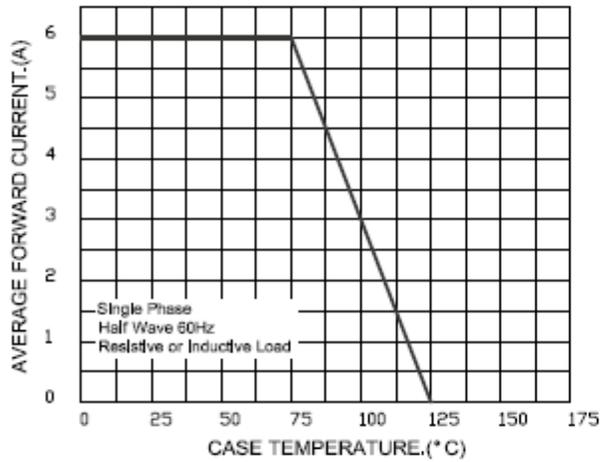
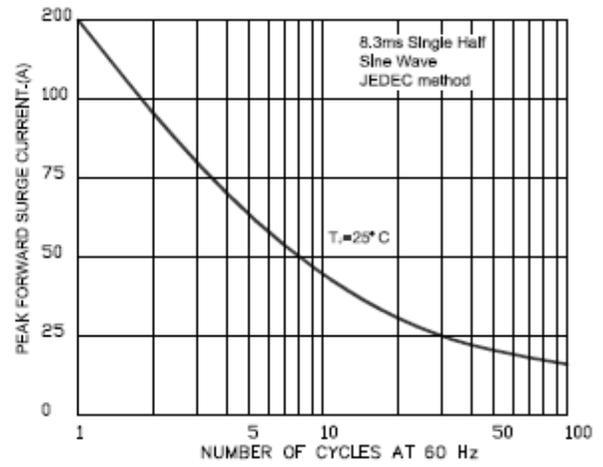FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

FIG.2-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT
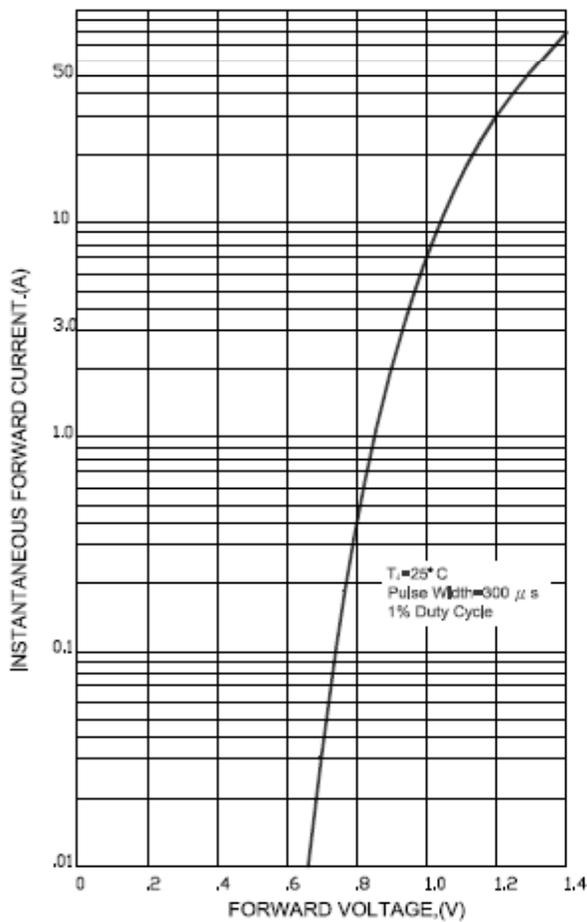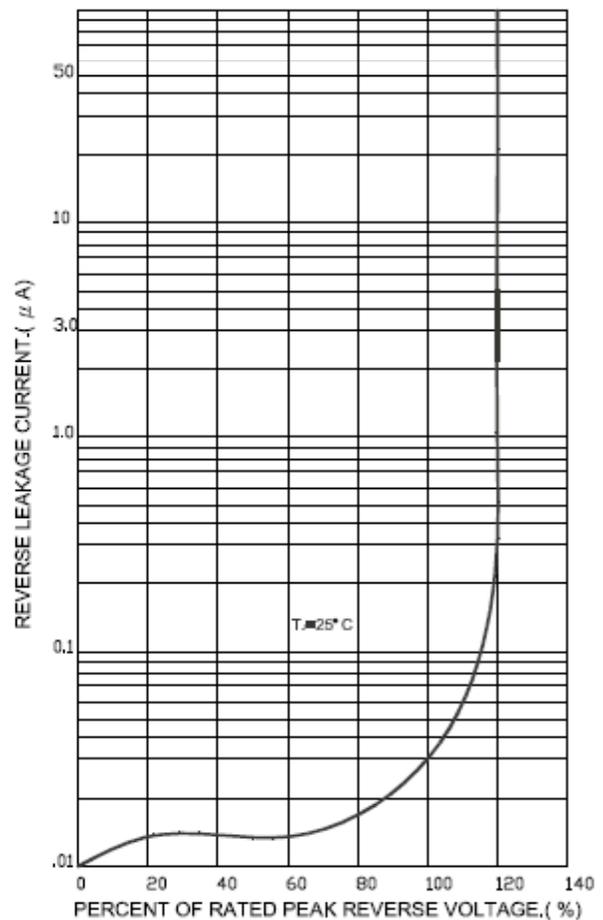

FIG.3-TYPICAL FORWARD CHARACTERISTICS

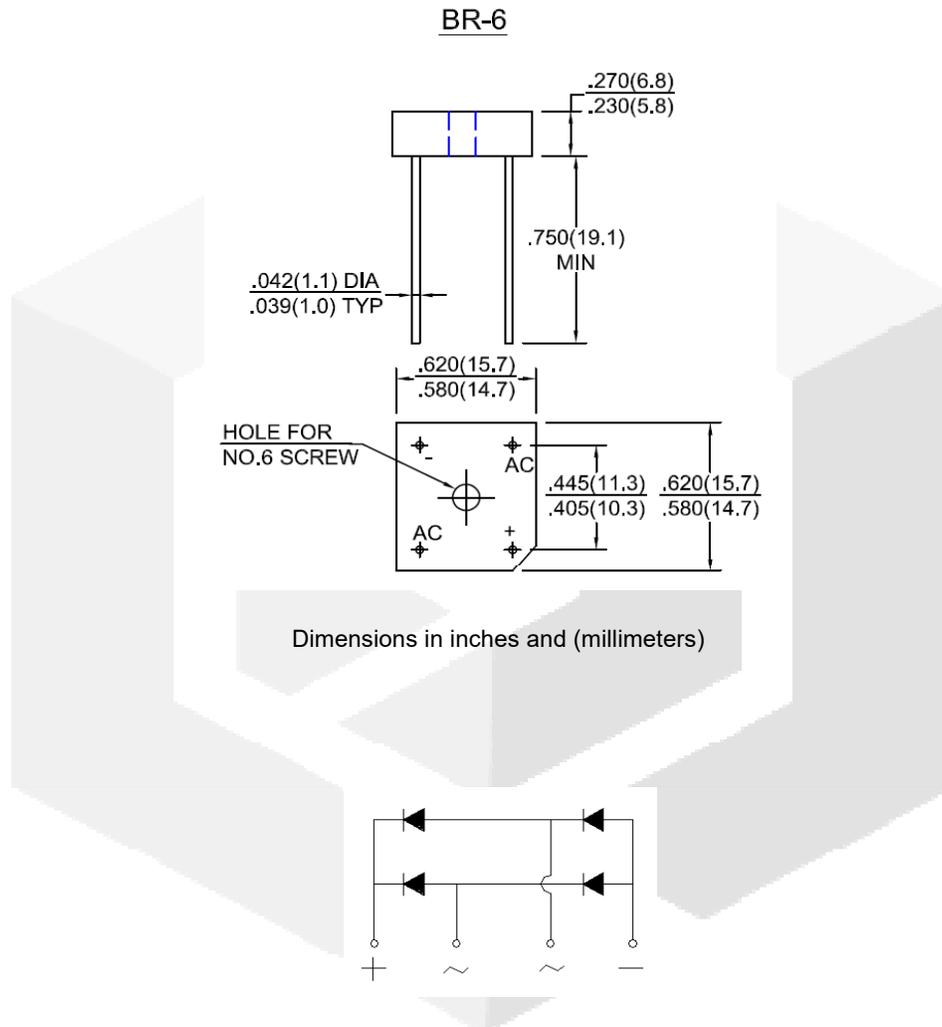FIG.4-TYPICAL REVERSE CHARACTERISTICS

Package dimensions and terminal configuration

Product is marked with part number and terminal configuration.

BR-6

.270(6.8)
.230(5.8)

.750(19.1)
MIN

.042(1.1) DIA
.039(1.0) TYP

.620(15.7)
.580(14.7)

HOLE FOR
NO.6 SCREW

AC

.445(11.3)   .620(15.7)
.405(10.3)   .580(14.7)

AC

Dimensions in inches and (millimeters)

Mouser Electronics

Authorized Distributor

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[BR605](#) [BR61](#) [BR62](#) [BR64](#)