Glass Passivated Bridge Rectifiers
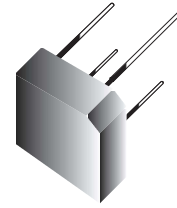
Comchip
SMD Diode Specialist

BR10005SG-G Thru. BR1010SG-G

Reverse Voltage: 50 to 1000V
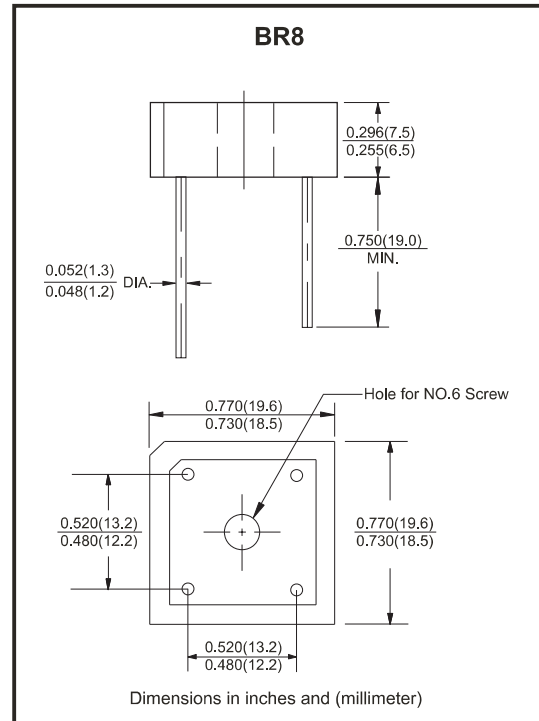## Forward Current: 10.0A
RoHS Device

Features

- Low forward voltage drop.

- Small size ; simple installation.

- Sliver plated copper leads.

- Surge overload rating -175 amperes peak.

- UL recognized file # E349301

Mechanical Data

- Polarity: As marked on Body.

- Mounting position: Any.

- Weight: 3.61 grams.

BR8

0.296(7.5)
0.255(6.5)

0.750(19.0) MIN.

0.052(1.3)
0.048(1.2) DIA.

0.770(19.6)
0.730(18.5)

Hole for NO.6 Screw

0.520(13.2)
0.480(12.2)

0.770(19.6)
0.730(18.5)

0.520(13.2)
0.480(12.2)

Dimensions in inches and (millimeter)

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%

Parameter	Symbol	BR10005 SG-G	BR1001 SG-G	BR1002 SG-G	BR1004 SG-G	BR1006 SG-G	BR1008 SG-G	BR1010 SG-G	Unit
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	50	100	200	400	600	800	1000	V
Maximum RMS Bridge Input Voltage	V_{RMS}	35	70	140	280	420	560	700	V
Maximum DC Blocking Voltage	V_{DC}	50	100	200	400	600	800	1000	V
Maximum Average Forward Rectified Output Current at T_A=50°C	$I_{(AV)}$	10.0							A
Peak Forward Surge Current, 8.3ms Single Half Sine-Wave Super Imposed On Rated Load	I_{FSM}	175							A
Maximum Forward Voltage Drop Per Bridge Element at 5.0A Peak	V_F	1.1							V
Maximum Reverse Current at Rate DC Blocking Voltage Per Element T_J=25°C	I_R	10.0							µA
T_J=100°C		1.0							mA
Operating Temperature Range	T_J	-55 to +150							°C
Storage Temperature Range	T_{STG}	-55 to +150							°C

Notes:

1. Unit mounted on metal chassis.

2. Unit mounted on P.C.B.

REV: B

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Rating and Characteristics Curves (BR10005SG-G Thru. BR1010SG-G)
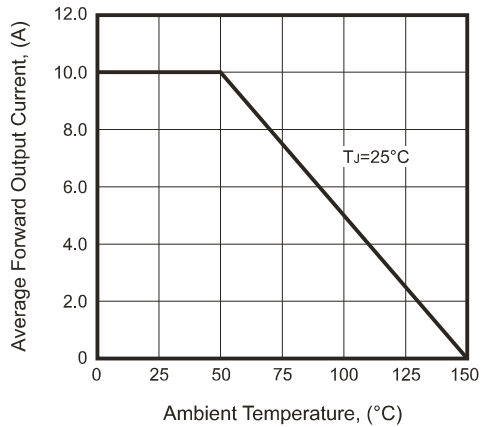
Fig.1 - Derating Curve Output Rectified Current
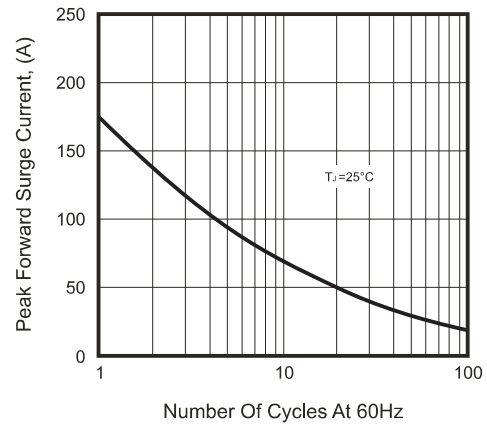

Average Forward Output Current, (A) vs Ambient Temperature, (°C)

TJ=25°C

Fig.2 - Maximum Forward Surge Current

Peak Forward Surge Current, (A) vs Number Of Cycles At 60Hz

TJ=25°C

Fig.3 - Typical Forward Characteristics

Instantaneous Forward Current, (A) vs Instantaneous Forward Voltage, (V)

TJ=25°C
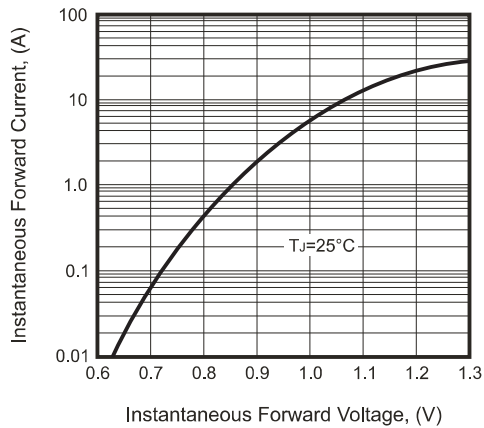
Fig.4 - Typical Reverse Characteristics

Instantaneous Reverse Current, (µA) vs Percent of Peak Reverse Voltage, (%)

TJ=25°C

REV: B

Glass Passivated Bridge Rectifiers

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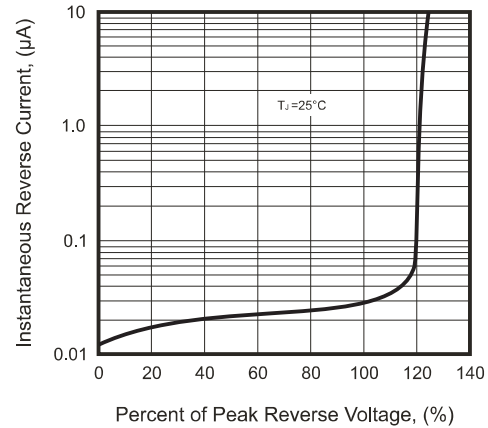
Marking Code

Part Number	Marking code
BR10005SG-G	BR10005SG
BR1001SG-G	BR1001SG
BR1002SG-G	BR1002SG
BR1004SG-G	BR1004SG
BR1006SG-G	BR1006SG
BR1008SG-G	BR1008SG
BR1010SG-G	BR1010SG

BR10XXXSG
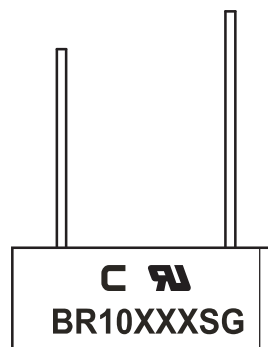
XX / XXX = Product type marking code
ⵎ = Compchip Logo

Standard Packaging

Case Type	BULK PACK	
	BOX (pcs)	CARTON (pcs)
BR8	200	2,000

Company reserves the right to improve product design , functions and reliability without notice. REV: B

QW-BBR87

Comchip Technology CO., LTD.

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