

	<b>E502650</b>
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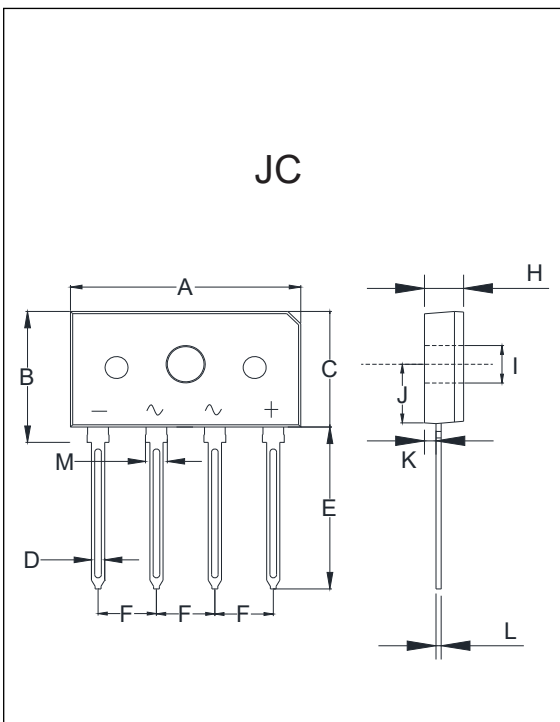
**Features**

- Halogen Free. "Green" Device (Note 1)
- Glass Passivated Chip Junction
- High Surge Forward Current Capability
- Epoxy Meets UL 94 V-0 Flammability Rating
- Lead Free Finish/RoHS Compliant (Note 2)("P" Suffix Designates RoHS Compliant. See Ordering Information)

**Maximum Ratings @ 25°C (Unless Otherwise Specified)**

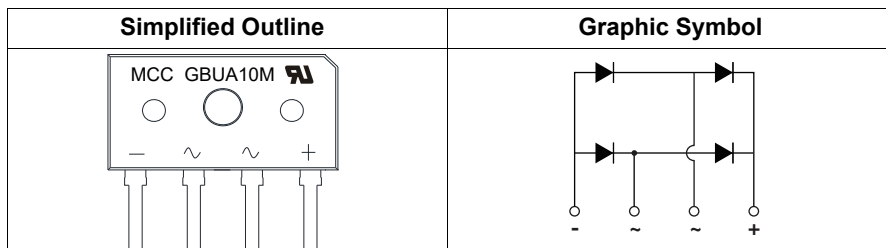
Parameter	Symbol	Value	Unit
Peak Repetitive Reverse Voltage	$V_{RRM}$	1000	V
Working Peak Reverse Voltage	$V_{RWM}$		
DC Blocking Voltage	$V_R$		
RMS Reverse Voltage	$V_{RMS}$	700	V
Average Rectified Forward Current @ $T_c=105^\circ\text{C}$ (With Heatsink)	$I_{F(AV)}$	10	A
Average Rectified Forward Current @ $T_a=25^\circ\text{C}$ (Without Heatsink)		2.5	
Non-Repetitive Peak Surge Current @ 8.3ms Half Sine Wave	$I_{FSM}$	175	A
Non-Repetitive Peak Surge Current @ 1ms Square Wave		350	
$I^2t$ Rating for Fusing @ $1\text{ms} \leq t \leq 8.3\text{ms}$	$I^2t$	127	$\text{A}^2\text{s}$
Dielectric strength @ Terminals to Case, AC 1 Minute	$V_{dis}$	2.0	KV

# 10 Amp Bridge Rectifiers 1000 Volts



DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	0.772	0.803	19.60	20.40	
B	0.453	0.484	11.50	12.30	
C	0.398	0.429	10.10	10.90	
D	0.039	0.051	1.00	1.30	
E	0.559	0.591	14.20	15.00	
F	0.192	0.208	4.88	5.28	
H	0.122	0.146	3.10	3.70	
I	0.116	0.132	2.95	3.35	
J	0.209	0.232	5.30	5.90	
K	0.028	0.051	0.70	1.30	
L	0.012	0.024	0.30	0.60	
M	0.067	0.083	1.70	2.10	

**Internal Structure**



- Note:
1. Halogen free "Green" products are defined as those which contain <900ppm bromine, <900ppm chlorine (<1500ppm total Br + Cl) and <1000ppm antimony compounds.
  2. High temperature solder exemption applied, see EU directive annex 7a.

## Thermal characteristics

Symbol	Parameter	Conditions	Min	Typ	Max	Unit
$T_J$	Operating Junction Temperature Range		-55		150	°C
$T_{stg}$	Storage Temperature Range		-55		150	°C
$R_{th(J-C)}$	Thermal Resistance from Junction to Case	Note 1		2.2		°C/W
$R_{th(J-A)}$	Thermal Resistance from Junction to Ambient	Without Heatsink		30		°C/W

Note:

1. Device mounted on 75mm x 45mm x 5.5mm aluminum plate heatsink.

## Mechanical Data

Recommended Mounting Torque: 0.5 N•m

## Electrical Characteristics @ 25°C Unless Otherwise Specified

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Forward Voltage	$V_F$	$I_F=5A; T_J=25^\circ C$			1.0	V
Reverse Current	$I_R$	at Rated $V_R; T_J=25^\circ C$ at Rated $V_R; T_J=125^\circ C$			5 100	uA
Junction Capacitance	$C_J$	$V_R=4V; f=1MHz; T_J=25^\circ C$		50		pF

## Curve Characteristics

Fig. 1 - Forward Current Derating Curve

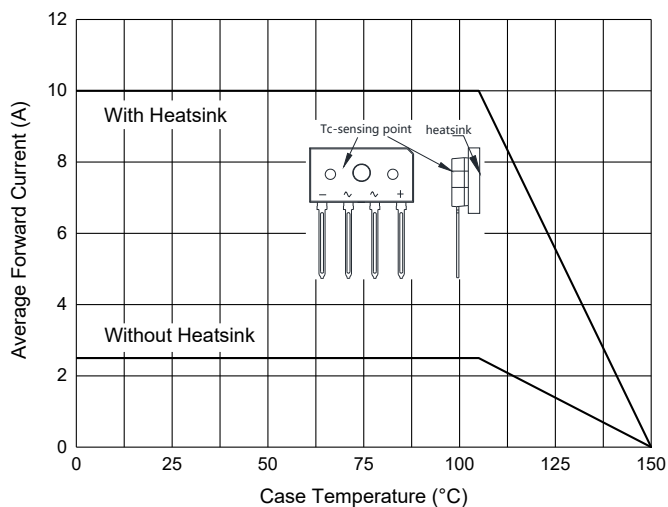


Fig. 2 - Maximum Non-Repetitive Peak Forward Surge Current

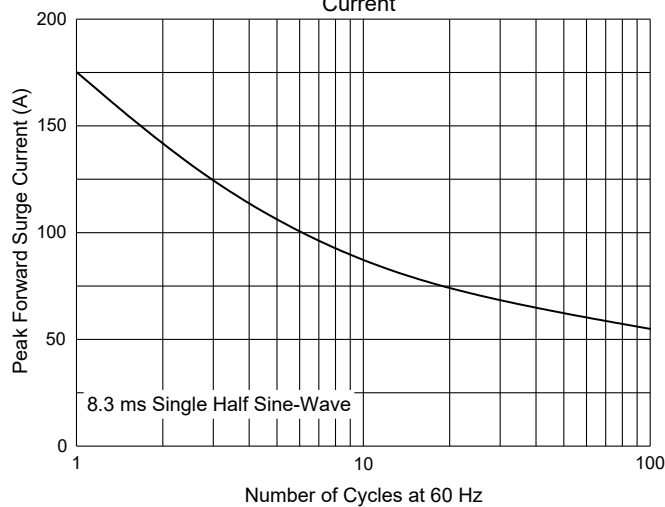


Fig. 3 - Typical Forward Characteristics

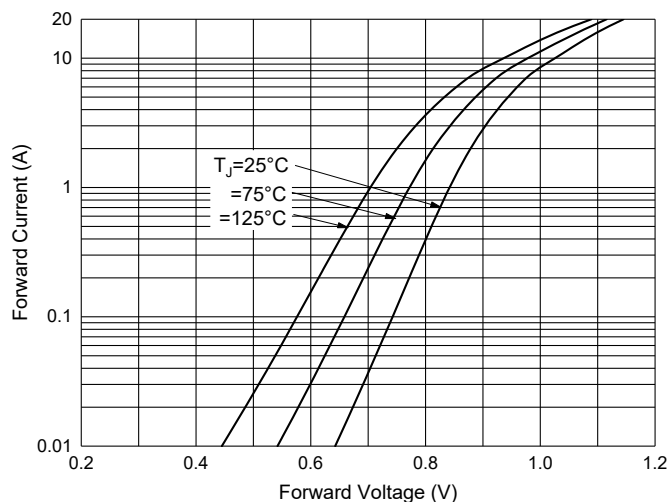


Fig. 4 - Typical Reverse Leakage Characteristics

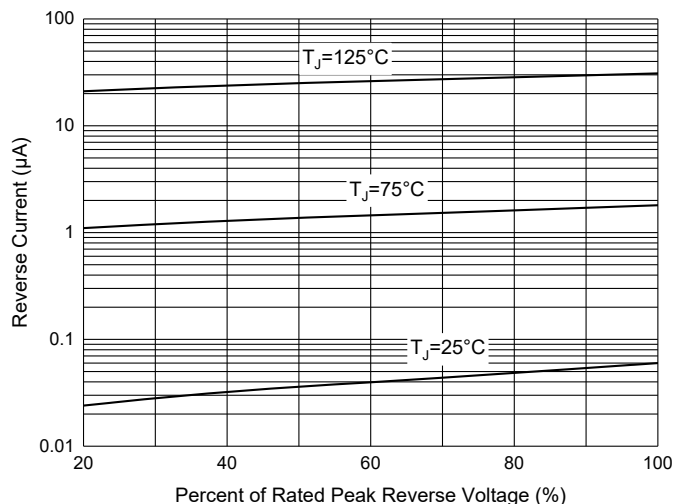
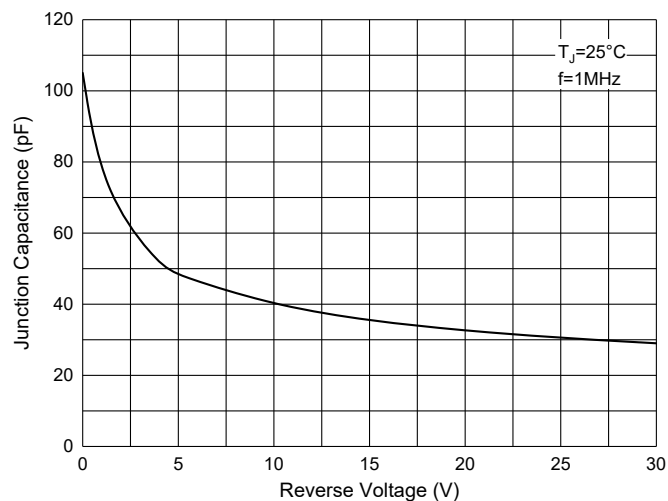


Fig. 5 - Typical Capacitance Characteristics



## Ordering Information

Device	Packing
Part Number-BP	Bulk:25pcs/Tube,625pcs/Box,5000pcs/Carton

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