

**Micro Commercial Components** 



Micro Commercial Components 20736 Marilla Street Chatsworth CA 91311

Phone: (818) 701-4933 (818) 701-4939 Fax:

# GBU<sub>10</sub>A **THRU** GBU10M

10 Amp Single Phase **Glass Passivated Bridge Rectifiers** 50 to 1000 Volts

## **Features**

- UL Recognized File # E165989
- Glass Passivated Chip junction
- High Surge Overload Rating Case Material:Molded Plastic. UL Flammability Classificatio Rating 94-0 and MSL Rating 1
- Lead Free Finish/RoHS Compliant (NOTE 1)("P" Suffix designates RoHS Compliant. See ordering information)
- High Case Dielectric Strength of 1500 V<sub>RMS</sub>

## **Maximum Ratings**

- Operating Temperature: -55°C to +150°C Storage Temperature: -55°C to +150°C
- Typical Thermal Resistance:2.2°C/W Junction to Case(Heatsink)
- Mounting Torque: 5.0 in-lbs Maximum

MCC	Maximum Recurrent	Maximum	Maximum DC Blocking
Part Number	Peak Reverse Voltage	RMS Voltage	Voltage
GBU10A	50V	35V	50V
GBU10B	100V	70V	100V
GBU10D	200V	140V	200V
GBU10G	400V	280V	400V
GBU10J	600V	420V	600V
GBU10K	800V	560V	800V
GBU10M	1000V	700V	1000V

### Electrical Characteristics @ $25^{\circ}$ C Unless Otherwise Specified

Maximum Average Forward Current (with heatsink Note 1)	I <sub>F(AV)</sub>	10 A	T <sub>C</sub> = 100°C
Peak Forward Surge Current	I <sub>FSM</sub>	200A	8.3ms, half sine
Maximum Instantaneous Forward Voltage	$V_{F}$	1.1V	At 5A DC
Maximum DC Reverse Current At Rated DC Blocking Voltage	I <sub>R</sub>	5.0uA 500uA	T <sub>A</sub> = 25°C T <sub>A</sub> = 125°C
Typical Junction Capacitance	CJ	70pF	Measured at 1.0MHz, V <sub>R</sub> =4.0V
I <sup>2</sup> t Rating for Fusing	l <sup>2</sup> t	200A <sup>2</sup> S	t<8.3ms

**GBU Case Style** 1.90 RADIUS

DIMENSIONS					
	INCHES		ММ		
DIM	MIN	MAX	MIN	MAX	NOTE
Α	.860	.880	21.80	22.30	
В	.720	.740	18.30	18.80	
С	.130	.142	3.30	3.60	
D	.690	.717	17.50	18.20	
Е	.030	.039	0.76	1.00	
F	.018	.024	0.46	0.60	
G	.290	.310	7.40	7.90	
Н	.140	.160	3.50	4.10	
	.065	.085	1.65	2.16	
J	.060	.096	1.52	2.45	
K	.077	.098	1.95	2.50	
Ĺ	.040	.050	1.02	1.27	
M	.190	.210	4.83	5.33	
N	7.0° TYPICAL				

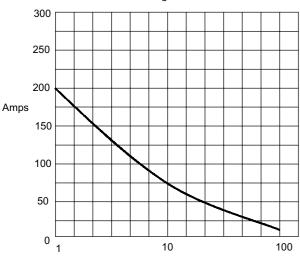
1. High Temperature Solder Exemption Applied, see EU Directive Annex Notes 7



## GBU10A thru GBU10M

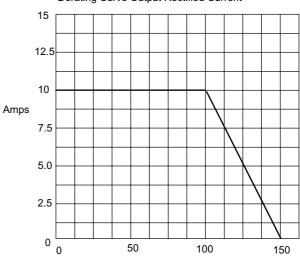
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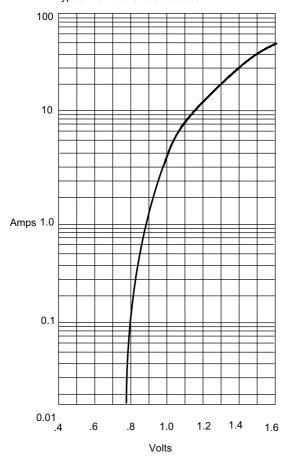
Peak Forward Surge Current - Amperes *versus* Number of Cycles At 60 Hz

Figure2
Derating Curve Output Rectified Current



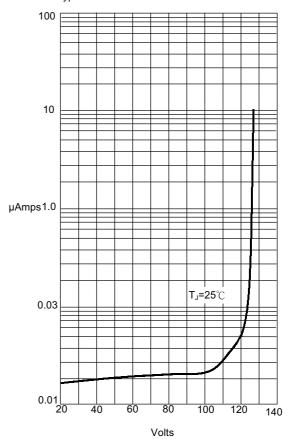
CASE TEMPERATURE ℃

Figure 3
Typical Forward Characteristics



Instantaneous Forward Current -Amperes *versus* Instantaneous Forward Voltage - Volts

Figure 4
Typical Reverse Characteristics



Instantaneous Reverse Current - MicroAmperes *versus* Percent of Rated Peak Reverse Voltage - Volts



## **Ordering Information**

Device	Packing
(Part Number)-BP	Bulk;1K/Box

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