

	E502650
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Features

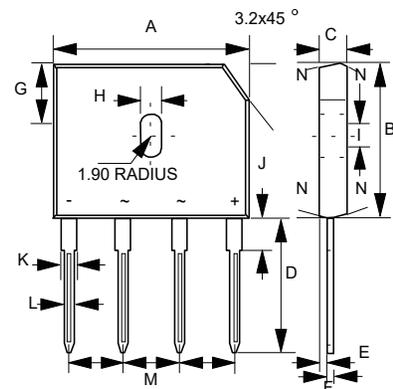
- Halogen Free Available Upon Request By Adding Suffix "-HF"
- Lead Free Finish/RoHS Compliant(Note 1) ("P" Suffix Designates Compliant. See Ordering Information)
- Epoxy Meets UL 94 V-0 Flammability Rating
- High Surge Current Capability
- Low Forward Voltage Drop

Maximum Ratings @ 25°C (Unless Otherwise Specified)

Parameter	Symbol	Value	Unit	
Peak Repetitive Reverse Voltage	V_{RRM}	800	V	
Working Peak Reverse Voltage	V_{RWM}			
DC Blocking Voltage	V_R			
RMS Reverse Voltage	V_{RMS}	560	V	
Average Rectified Forward Current	$I_{F(AV)}$	With Heatsink; $T_C=110^\circ C$	25	A
		Without Heatsink; $T_A=25^\circ C$	4	
Non-Repetitive Peak Surge Current @8.3ms Half Sine Wave	I_{FSM}	360	A	
Non-Repetitive Peak Surge Current @1ms Square Wave		700		
Current Squared Time @ $1ms \leq t \leq 8.3ms$	I^2t	538	A^2s	
Dielectric Strength @ Terminals to Case, AC 1 Minute	V_{dis}	2.5	KV	
Recommend Mounting Torque	Tor	5	in-lbs	

**25 Amp
Low VF Bridge
Rectifier
800 Volts**

GBU

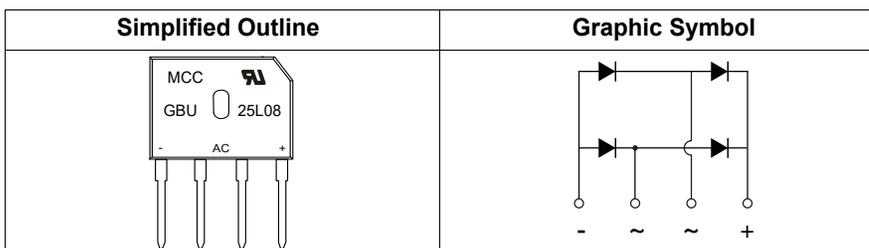


DIM	DIMENSIONS				NOTE
	INCHES		MM		
	MIN	MAX	MIN	MAX	
A	0.860	0.880	21.80	22.30	
B	0.720	0.740	18.30	18.80	
C	0.130	0.142	3.30	3.60	
D	0.690	0.717	17.50	18.20	
E	0.030	0.039	0.76	1.00	
F	0.018	0.024	0.46	0.60	
G	0.290	0.310	7.40	7.90	
H	0.140	0.160	3.50	4.10	
I	0.065	0.085	1.65	2.16	
J	0.060	0.096	1.52	2.45	
K	0.077	0.098	1.95	2.50	
L	0.040	0.050	1.02	1.27	
M	0.190	0.210	4.83	5.33	
N	7.0° TYPICAL				

Marking Code

Part Number	Marking Code
GBU25L08	GBU25L08

Internal Structure



Note :1. 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
Rth _(J-C)	Thermal Resistance from Junction to Case	(Note 1)		1.4		°C/W
Rth _(J-A)	Thermal Resistance from Junction to Ambient	(Note 2)		25		°C/W

Note:

1.Device mounted on 75mm x 45mm x 5.5mm Aluminum Plate Heatsink.

2.Without Heatsink, Free Air.

Electrical Characteristics @ 25°C Unless Otherwise Specified

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Forward Voltage Per Diode	V _F	I _F =12.5A;T _J =25°C		0.88	0.92	V
		I _F =12.5A;T _J =125°C		0.77	0.82	
Reverse Current	I _R	V _R =800V;T _J =25°C			5	uA
		V _R =800V;T _J =125°C			50	
Junction Capacitance	C _J	V _R =4V;f=1MHz;T _J =25°C		165		pF

Curve Characteristics

Fig. 1 - Forward Current Derating Curve

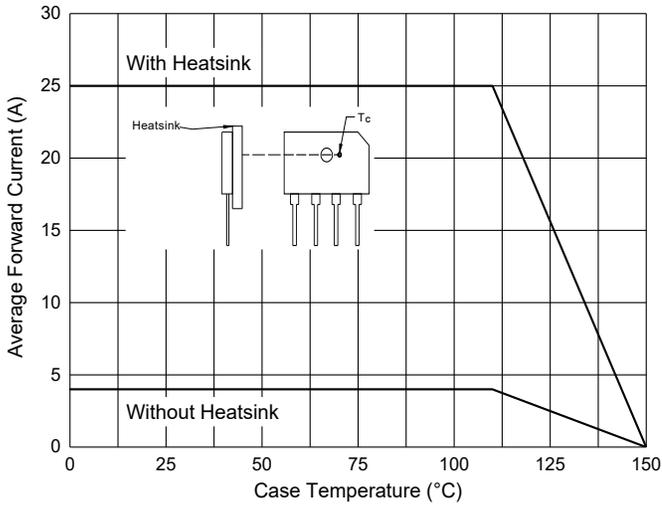


Fig. 2 - Maximum Non-Repetitive Peak Forward Surge Current

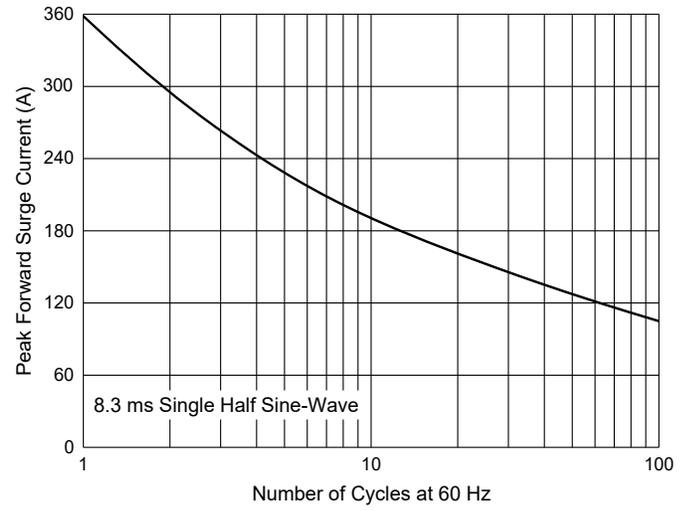


Fig. 3 - Typical Forward Characteristics

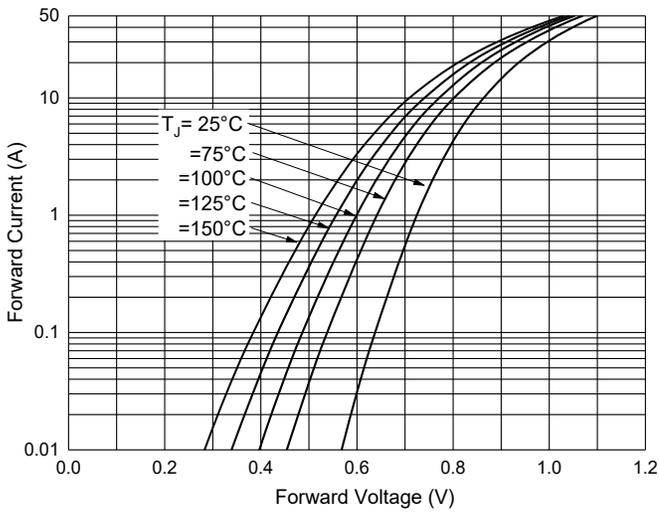


Fig. 4 - Typical Reverse Leakage Characteristics

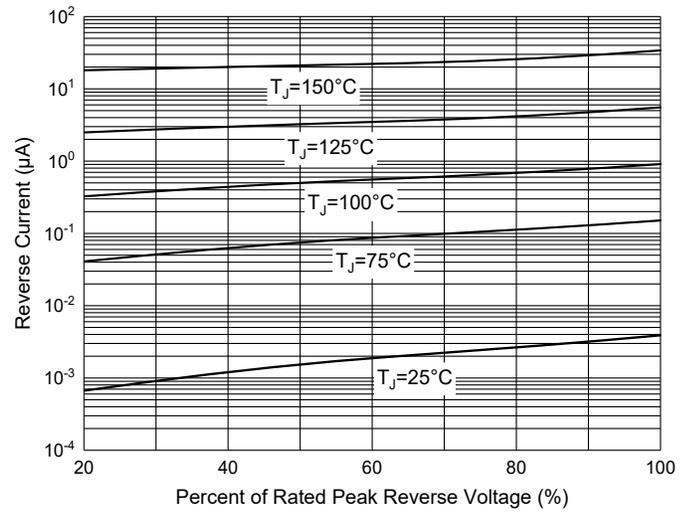
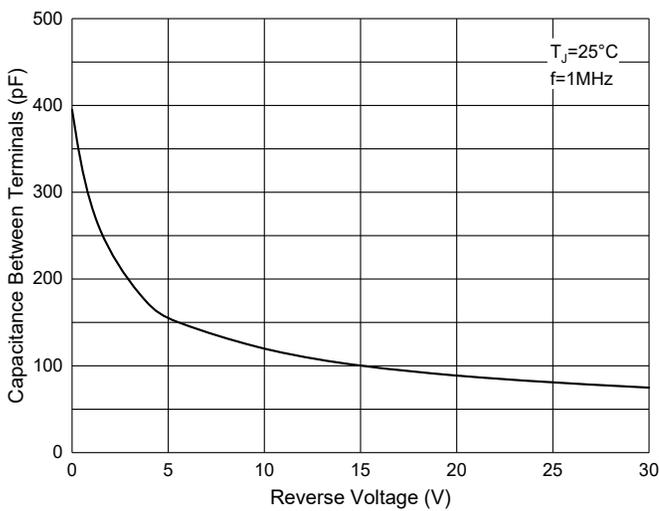


Fig. 5 - Typical Capacitance Characteristics



Ordering Information

Device	Packing
Part Number-BP	Bulk:20pcs/Tube, 1Kpcs/Box, 2Kpcs/Carton

Note : Adding "-HF" Suffix For Halogen Free, eg. Part Number-BP-HF

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