

Silicon Bridge Rectifiers

GBS6A--GBS6M

FEATURES

- Rating to 1000V PRV
- Surge overload rating to 140 Amperes peak
- Reliable low cost construction utilizing molded plastic technique results in inexpensive product
- Lead solderable per MIL-STD-202 method 208



Lead-free

Maximum Ratings (@TA = 25°C unless otherwise specified)

Characteristic	Symbol	GBS 6A	GBS 6B	GBS 6D	GBS 6G	GBS 6J	GBS 6K	GBS 6M	UNITS
Maximum recurrent peak reverse voltage	V _{RRM}	50	100	200	400	600	800	1000	V
Maximum RMS 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
50Hz sine wave, R-load Without heat sink Ta=25°C 50Hz sine wave, R-load With heat sink Tc=50°C	I _{F(AV)}	2.3 6.0							A
Peak forward surge current 8.3ms single half-sine-wave superimposed on rated load	I _{FSM}	140							A

Thermal Characteristics

Characteristic	Symbol	GBS 6A	GBS 6B	GBS 6D	GBS 6G	GBS 6J	GBS 6K	GBS 6M	UNITS
Rating for fusing (t < 8.3 ms)	I _{2t}	82							A2s
Typical junction capacitance per diode	C _J	95				40			pF
Typical thermal resistance	R _{θJA}	22							°C/W
	R _{θJC}	3.5							
Operating junction temperature range	T _J	- 55 ---- + 150							°C
Storage temperature range	T _{STG}	- 55 ---- + 150							°C

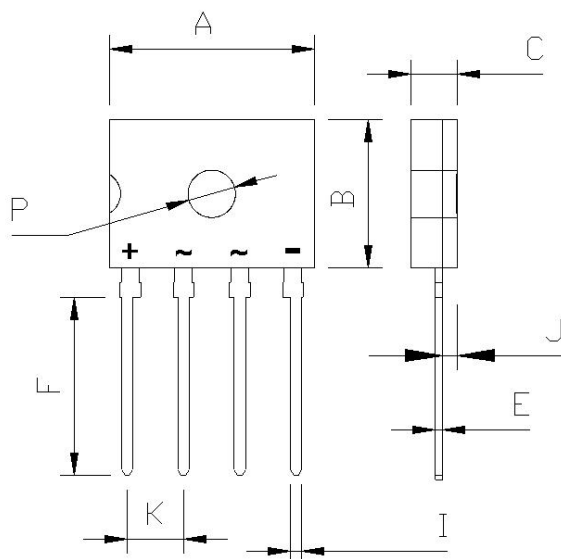
Electrical Characteristics (@TA = 25°C unless otherwise specified)

Characteristic	Symbol	Value	UNITS
Maximum instantaneous forward voltage @3.0A	V _F	1.05	V
Maximum reverse current @TA=25 °C at rated DC blocking voltage @TA=100°C	I _R	5.0 500	μ A

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PACKAGE OUTLINE DIMENSIONS



GBS		
Dim	Min	Max
A	13.65	14.15
B	9.80	10.20
C	2.95	3.25
E	0.35	0.65
F	11.70	12.30
I	0.65	0.95
J	0.90	1.20
K	3.60	4.00
P	Ø3.2Typical	
All Dimensions in mm		

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FIG.1 – TYPICAL FORWARD CURRENT DERATING CURVE

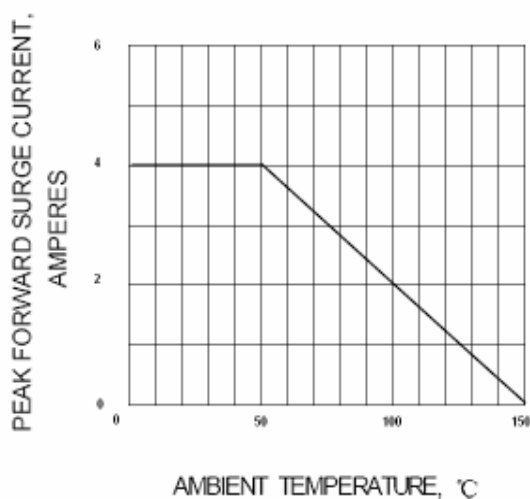


FIG.2 – MAXIMUM FORWARD SURGE CURRENT

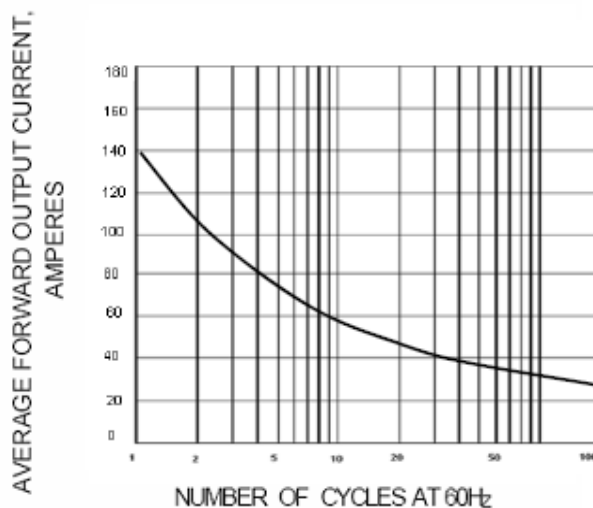


FIG.3 – TYPICAL FORWARD CHARACTERISTIC

