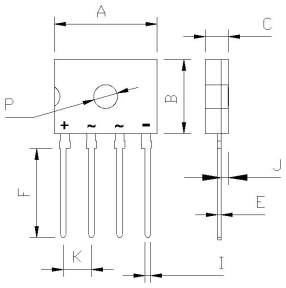
GBS6A-GBS6M

Silicon Bridge Rectifiers

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



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		

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℃ 50Hz sine wave, R-load With heat sink Tc=50℃	$I_{F(AV)}$	2.3 6.0							A
Peak forward surge current 8.3ms single half-sine-wave superimposed on rated load	I_{FSM}	170							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)	I2t	120							A2s
Typical junction capacitance per diode	C_J	95				40			pF
Typical thermal resistance	$R_{\theta JA}$ $R_{\theta JC}$	39 5.3							°C/W
Operating junction temperature range	T_J	- 55 ---- + 150							℃
Storage temperature range	T_{STG}	- 55 ---- + 150							℃

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

Characteristic	Symbol	Value	UNITS
Maximum instantaneous forward voltage @3.0A @6.0A	V_F	1.0 1.1	V
Maximum reverse current @T_A=25 ℃ at rated DC blocking voltage @T_A=100℃	I_R	5.0 500	μ A

Ratings and Characteristic Curves (T_A=25°C unless otherwise noted)

Fig.1-Forward Current Derating Curve

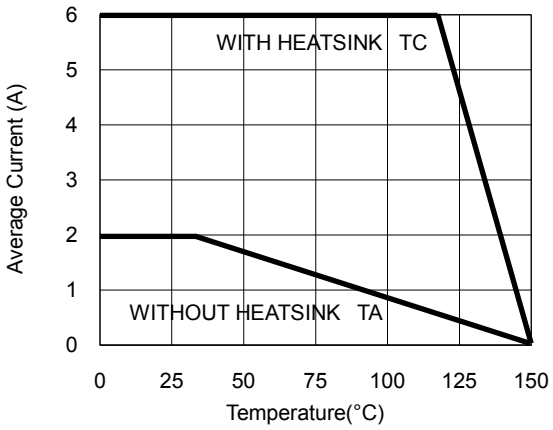


Fig.2- Surge Current Derating Curve

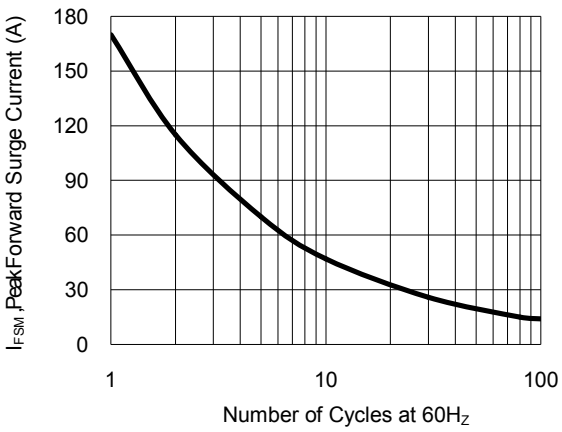


Fig.3- Typical Forward Voltage Characteristic

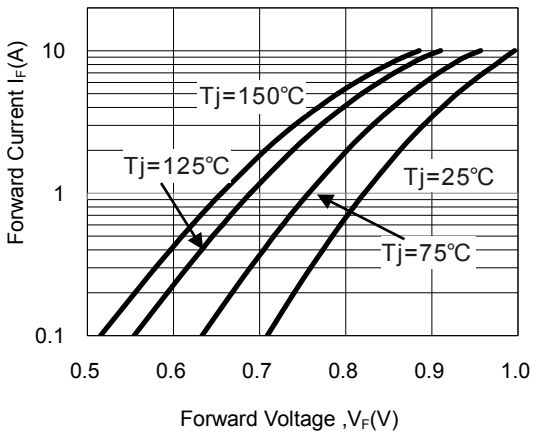


Fig.4- Typical Reverse Characteristic