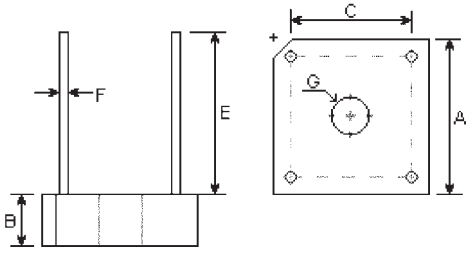
BR305 THRU BR310

SINGLE-PHASE SILICON BRIDGE
Reverse Voltage - 50 to 1000 Volts
Forward Current - 3.0 Amperes

Features

- Surge overload rating - 50 amperes peak
- Low forward voltage drop
- Small size; simple installation
- Tinned copper leads
- Mounting Position: Any
- Mounting: Thru hold for #6 screw

BR3



DIMENSIONS					
DIM	inches		mm		Note
	Min.	Max.	Min.	Max.	
A	0.580	0.620	14.96	15.71	
B	0.193	0.213	4.9	5.4	
C	0.405	0.445	10.29	11.31	
E	0.75	-	19	-	
F	0.028	0.032	0.71	0.81	ϕ
G	0.140	0.150	3.56	3.81	ϕ

Maximum Ratings and Electrical Characteristics

Ratings at 25℃ ambient temperature unless otherwise specified.
Single phase, half wave, 60Hz, resistive or inductive load.
For capacitive load, derate current by 20%.

	Symbols	BR305	BR31	BR32	BR34	BR36	BR38	BR310	Units
Maximum repetitive peak reverse voltage	V_{RRM}	50	100	200	400	600	800	1000	Volts
Maximum RMS bridge input voltage	V_{RMS}	35	70	140	280	420	560	700	Volts
Maximum average forward rectified output current at T_C=50℃ * / T_C=100℃ * / T_A=50℃ **	$I_{(AV)}$	3.0 / 2.0 / 2.0							Amps
Peak forward surge current, 8.3mS single half sine-wave superimposed on rated load	I_{FSM}	50.0							Amps
Maximum forward Voltage drop per bridge element at 1.5A peak	V_F	1.2							Volts
Maximum DC reverse current at rated DC blocking voltage per element T_A=25℃ / T_A=100℃	I_R	10.0 / 1.0							uA / mA
Operating temperature range	T_J	-55 to +125							℃
Storage temperature range	T_{STG}	-55 to +150							℃

Notes:

* Unit mounted on metal chassis

** Unit mounted on P.C. board

RATINGS AND CHARACTERISTIC CURVES

Fig. 1 – MAXIMUM FORWARD SURGE CURRENT

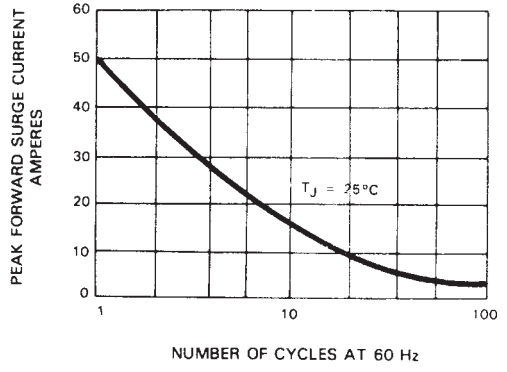


Fig. 2 – DERATING CURVE FOR OUTPUT RECTIFIED CURRENT

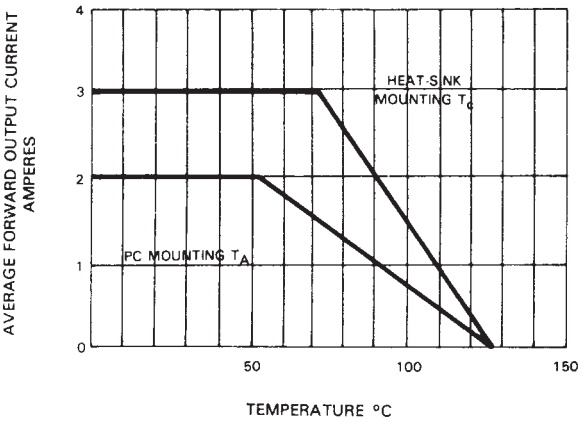


Fig. 3 – TYPICAL FORWARD CHARACTERISTICS

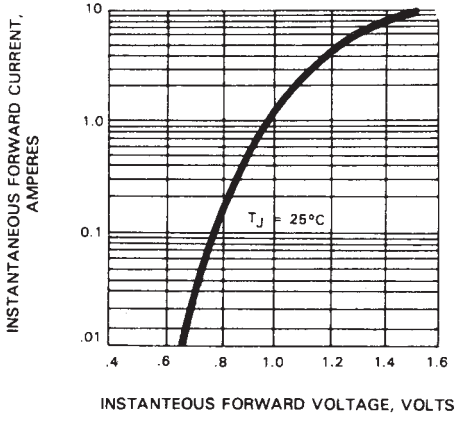


Fig. 4 – TYPICAL REVERSE CHARACTERISTICS

