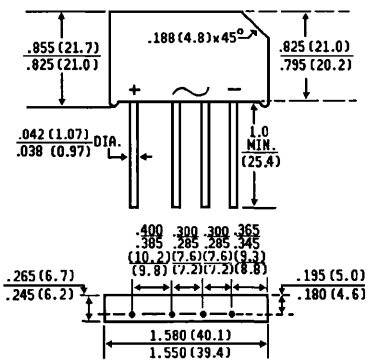
B40C / B80C / B125C / B250C / B380C
3700 / 2200 SERIES

SINGLE - PHASE SILICON BRIDGE RECTIFIER

***Voltage** - 65 to 600 Volts **Current** - 3.7 Amperes*

FEATURES



Dimensions in inches and (millimeters)

- Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- High surge current capability
- Typical I_R less than 0.1 μA
- Ideal for P.C. board mounting
- Built -in P.C. Board Stand-offs
- High temperature soldering guaranteed: 250°C for 5 seconds

MECHANICAL DATA

Case: Reliable low cost construction utilizing molded plastic technique
Terminals: Plated Leads solderable per MIL-STD-202, Method 208
Mounting Position: Any
Weight: 0.92 ounce, 25.3 grams

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified. 50 Hz or 60 Hz, resistive or inductive load.

	SYMBOLS	*B40*	*B80*	*B125*	*B250*	*B380*	*UNITS*
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	65	125	200	400	600	Volts
Maximum RMS Input Voltage R + C-Load	V_{RMS}	40	80	125	250	380	Volts
Maximum Average Forward Output Current for natural cooling operation at T_A = 45°C R + L-Load	$I_{(AV)}$			2.7			Amps
C - Load				2.2			
on Chassis = 31 IN^2, 200 cm^2, T_A=45°C C - Load				3.7			
R + L-Load				4.8			
Maximum DC Blocking Voltage (Note 1)	V_{DC}	65	125	200	400	600	Volts
Maximum Repetitive Peak Reverse Voltage (Note 1)	V_{RRM}	100	90	300	600	800	Volts
Maximum Repetive Peak Forward Surge Current	I_{FRM}			15.0			Amps
Peak Forward Surge Current Single Sine wave on rated load at T_J = 25°C	I_{FSM}			100			Amps
T_A = 150°C				80.0			
Rating for Fusing at (t<10ms) T_J = 25°C	I^2t			50.0			A^2S
T_J = 150°C				32.0			
Minimum Series Resistance at V_{RMS}	Rt	0.6	1.2	1.4	2.8	4.2	ohms
Maximum Reservoir Capacittor	C_L	5000	2500	1000	600	300	μF
Maximum Instantaneous Forward Voltage Drop per element at 3.OA	V_F			1.0			Volts
Maximum Reverse Current at rated Repetitive Peak Voltage T_A = 25°C	I_R			10.0			μA
T_J = 150°C				6.0			mA
Typical Thermal Resistance (Note 2)	RΘJA			3.0			°C/W
Operating and Storage Temperature Range	T_J,T_{STG}			-50 to +150			°C

NOTES:
1. Valid for each bridge element
2. Thermal Resistance from Junction to Ambient with bridge mounted on a 3"sq. x .11" THK (7.5 cm.sq. x 0.3 cm) AL.Plate

FIG. 1 — DERATING CURVE FOR OUTPUT RECTIFIED CURRENT

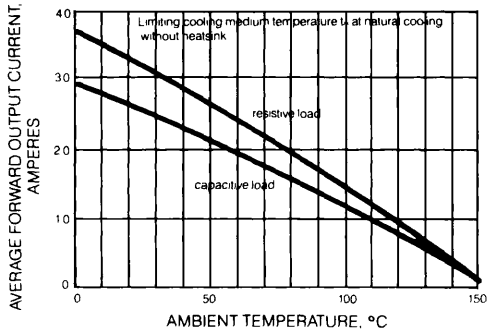


FIG. 2 — DERATING CURVE FOR OUTPUT RECTIFIED CURRENT

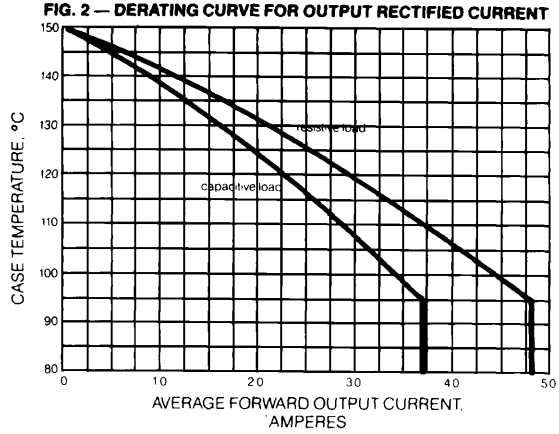


FIG. 3 — TYPICAL FORWARD CHARACTERISTIC PER BRIDGE ELEMENT

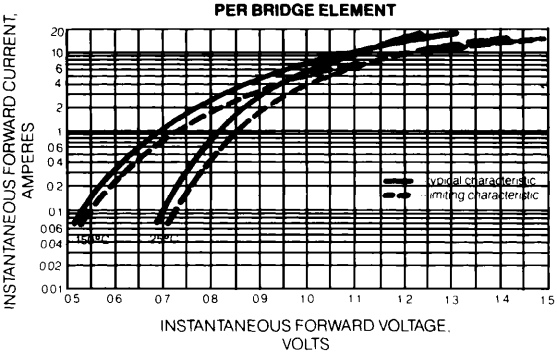


FIG. 4 — MAXIMUM NON-REPETITIVE SURGE CURRENT

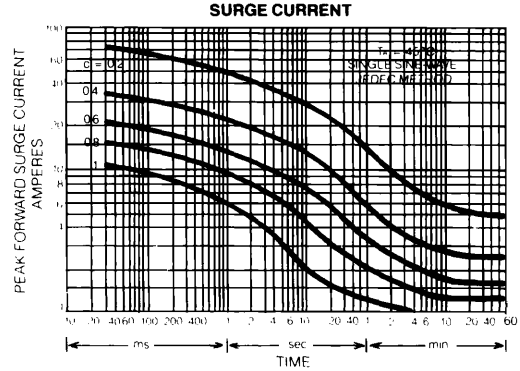


FIG. 5 — MAXIMUM TOTAL BRIDGE POWER DISSIPATION

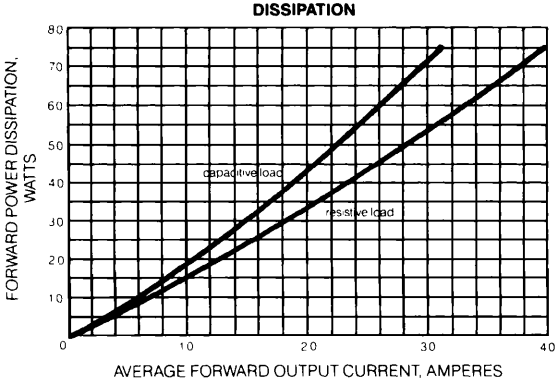


FIG. 6 — MEAN AVERAGE FORWARD CURRENT