

B40 - B380/C1500R

SILICON BRIDGE RECTIFIERS

PRV : 100 - 900 Volts

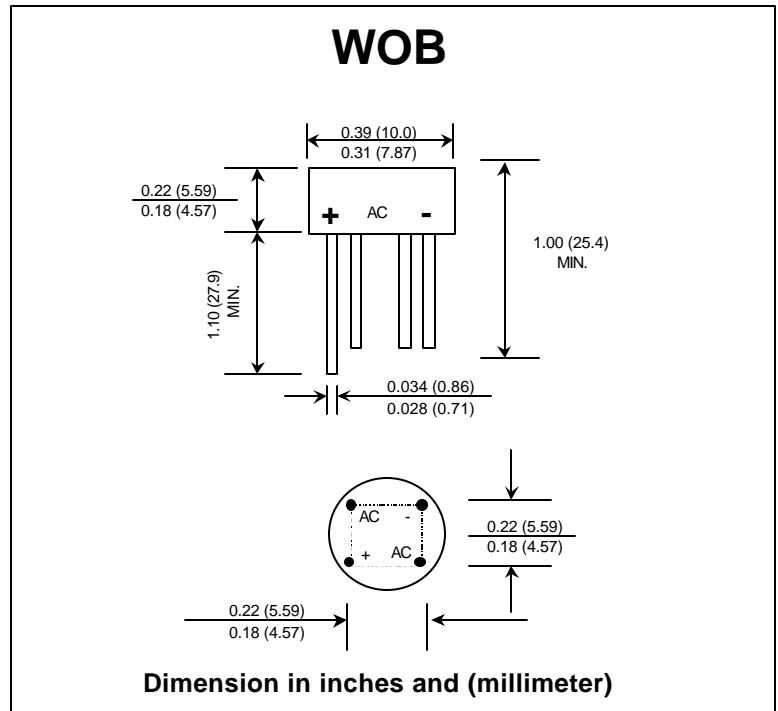
Io : 1.5 Amperes

FEATURES :

- * High case dielectric strength
- * High surge current capability
- * High reliability
- * Low reverse current
- * Low forward voltage drop
- * Ideal for printed circuit board

MECHANICAL DATA :

- * Case : Reliable low cost construction utilizing molded plastic technique
- * Epoxy : UL94V-O rate flame retardant
- * Terminals : Plated leads solderable per MIL-STD-202, Method 208 guaranteed
- * Polarity : Polarity symbols marked on case
- * Mounting position : Any
- * Weight : 1.29 grams



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

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

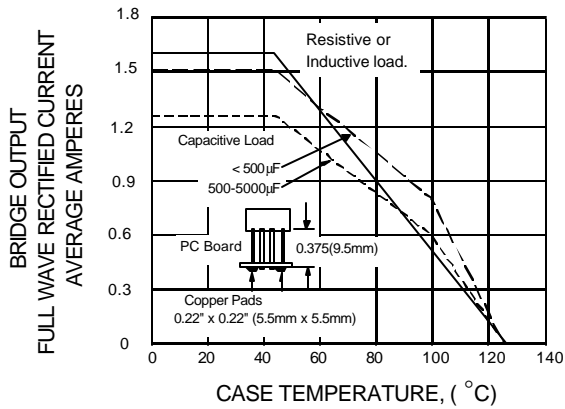
RATING	SYMBOL	B40- C1500R	B80- C1500R	B125- C1500R	B250- C1500R	B380- C1500R	UNIT
Maximum Recurrent Peak Reverse Voltage	V _{RRM}	100	200	300	600	900	Volts
Maximum RMS Input Voltage R+C -Load	V _{RMS}	40	80	125	250	380	Volts
Maximum DC Blocking Voltage	V _{DC}	100	200	300	600	900	Volts
Maximum Average Forward Current For Free Air Operation at T _c = 45 °C R+L -Load C -Load	I _{F(AV)}	1.6 1.5					Amps.
Peak Forward Surge Current Single half sine wave on rated load (JEDEC Method) at T _J = 125 °C	I _{FSM}	50					Amps.
Rating for fusing at T _J = 125°C (t < 100 ms.)	I ² t	10					A ² S
Maximum Series Resistor C-Load V _{RMS} = ± 10%	R _t	1.0	2.0	4.0	8.0	12.0	Ω
Maximum load Capacitance + 50% -10%	C _L	5000	2500	1000	500	200	μF
Maximum Forward Voltage per Diode at I _F = 1.5 Amps.	V _F	1.0					Volts
Maximum Reverse Current at Rated Repetitive Peak Voltage per Diode T _a = 25 °C	I _R	10					μA
Typical Thermal Resistance (Note 1)	R _{θJA}	36					°C/W
Operating Junction Temperature Range	T _J	- 50 to + 125					°C
Storage Temperature Range	T _{STG}	- 50 to + 150					°C

Notes :

- 1) Thermal resistance from Junction to Ambient at 0.375" (9.5 mm) lead length P.C. Board with, 0.22" x 0.22" (5.5 x 5.5 mm) copper Pads.

RATING AND CHARACTERISTIC CURVES (B40-B380/C1500R)

**FIG.1 - DERATING CURVE
FOR OUTPUT RECTIFIED CURRENT
B40 C1500R - B125 C1500R**



**FIG.2 - DERATING CURVE
FOR OUTPUT RECTIFIED CURRENT
B250 C1500R - B380 C1500R**

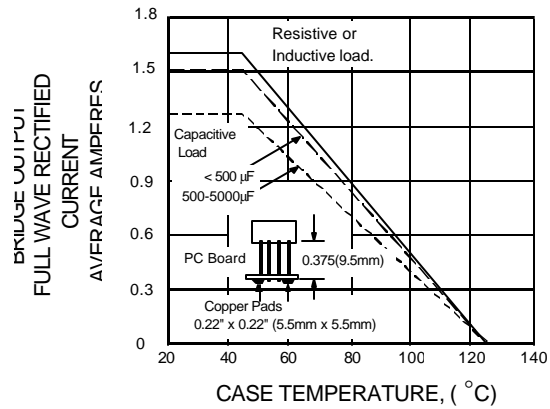


FIG.3 - TYPICAL FORWARD CHARACTERISTICS

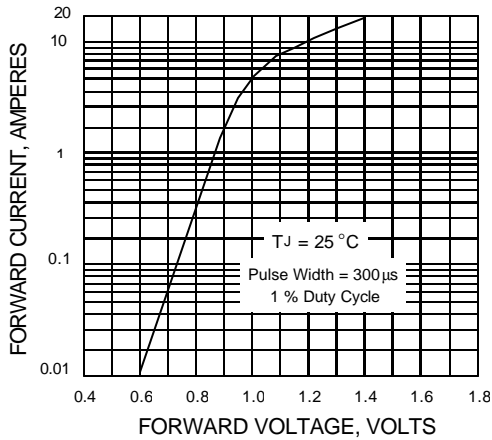
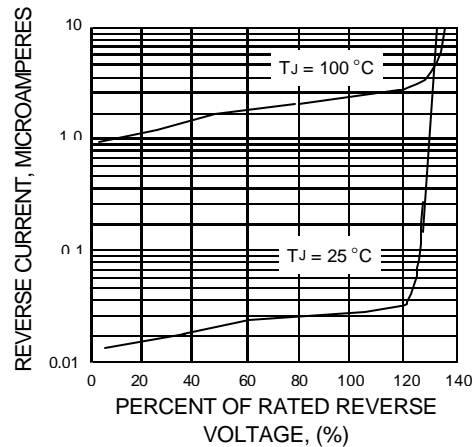
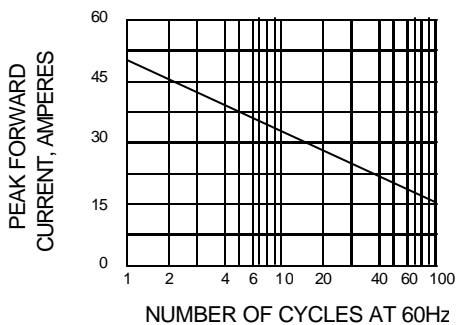


FIG.4 - TYPICAL REVERSE CHARACTERISTICS



**FIG.5 - MAXIMUM NON-REPETITIVE
PEAK FORWARD CURRENT**



**FIG.6 - TYPICAL JUNCTION CAPACITANCE
PER BRIDGE ELEMENT**

