B40 - B380/C1500R

SILICON BRIDGE RECTIFIERS

PRV : 100 - 900 Volts
Io : 1.5 Amperes

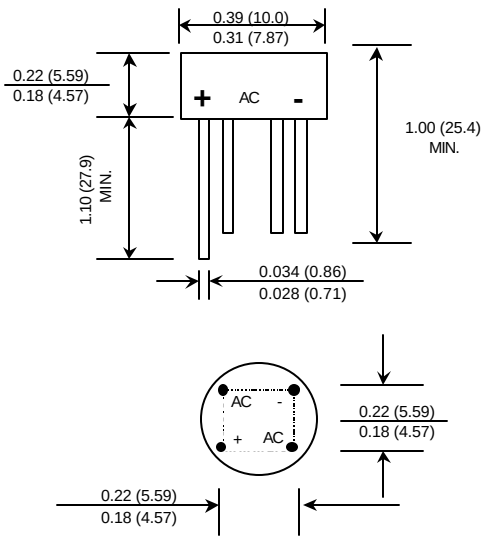
FEATURES :

* 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

WOB



Dimension in inches and (millimeter)

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 Tc = 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^2t	10					A^2S
Maximum Series Resistor C-Load V_{RMS} = ± 10%	Rt	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 Ta = 25 °C	I_R	10					µA
Typical Thermal Resistance (Note 1)	$R\theta JA$	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.

UPDATE : APRIL 23,1998

RATING AND CHARACTERISTIC CURVES (B40-B380/C1500R)

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

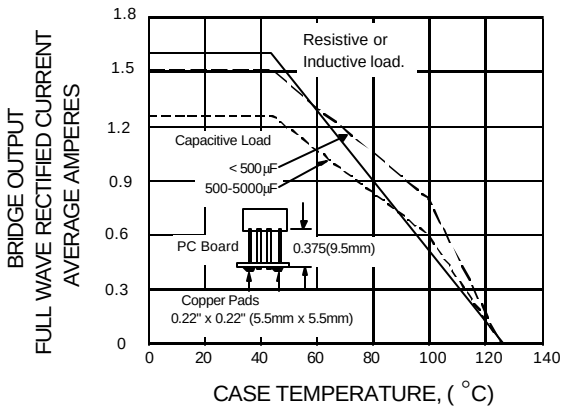


FIG.2 - DERATING CURVE FOR OUTPUT RECTIFIED CURRENT B250 C1500R - B380 C1500R

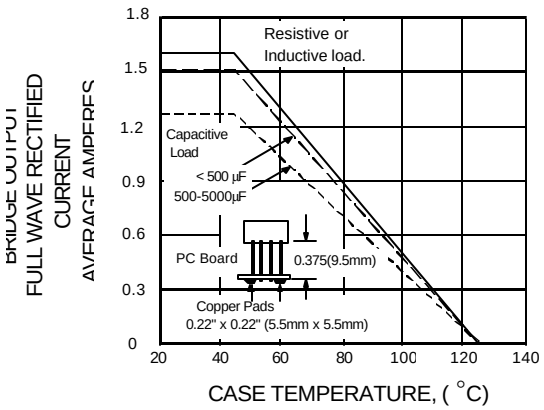


FIG.3 - TYPICAL FORWARD CHARACTERISTICS

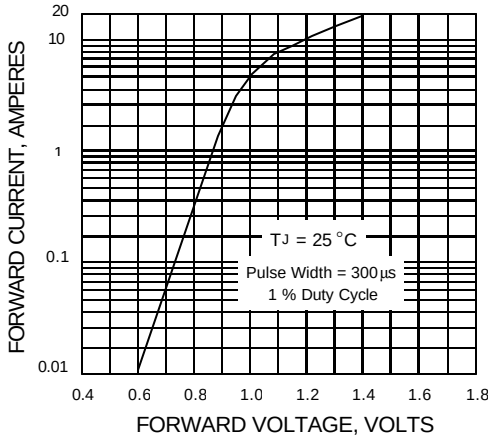


FIG.4 - TYPICAL REVERSE CHARACTERISTICS

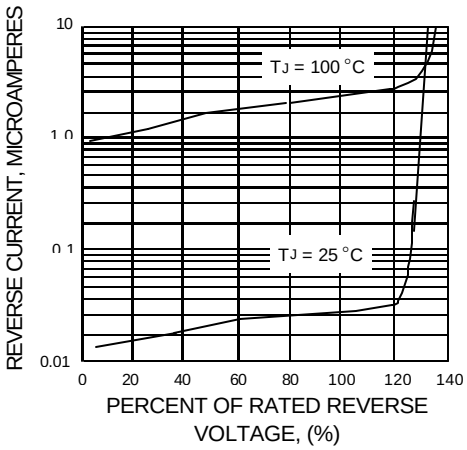


FIG.5 - MAXIMUM NON-REPETITIVE PEAK FORWARD CURRENT

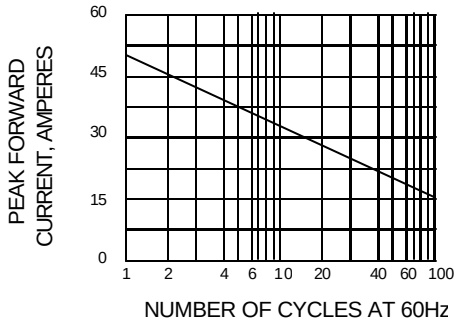


FIG.6 - TYPICAL JUNCTION CAPACITANCE PER BRIDGE ELEMENT