



DC COMPONENTS CO., LTD.

RECTIFIER SPECIALISTS

B40C / RS501
5000

THRU
B380C / RS507
5000

TECHNICAL SPECIFICATIONS OF SINGLE-PHASE SILICON BRIDGE RECTIFIER

VOLTAGE RANGE - 50 to 1000 Volts

CURRENT - 5.0 Amperes

FEATURES

- * High surge current capability
- * Ideal for printed circuit board
- * Low forward voltage

MECHANICAL DATA

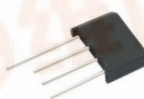
- * Case: Molded plastic
- * Epoxy: UL 94V-0 rate flame retardant
- * Lead: MIL-STD-202E, Method 208 guaranteed
- * Polarity: Symbols molded or marked on body
- * Mounting position: Any
- * Weight: 25.3 grams

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

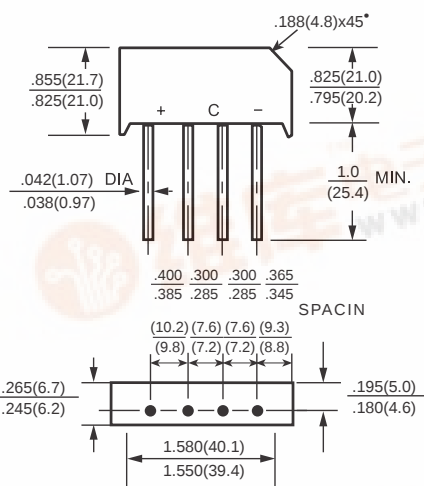
Ratings at 25°C ambient temperature unless otherwise specified.

Single phase, half wave, 60 Hz, resistive or inductive load.

For capacitive load, derate current by 20%.



RS-5



Dimensions in inches and (millimeters)

			B40C 5000	B80C 5000	B125C 5000	B250C 5000		B380C 5000		
		SYMBOL	RS501	RS502	RS503	RS504	RS505	RS506	RS507	UNITS
Maximum Recurrent 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 DC Blocking Voltage		V _{DC}	50	100	200	400	600	800	1000	Volts
Maximum Average Forward Output Current at T _A = 50°C		I _O	5.0							Amps
Peak Forward Surge Current, 8.3 ms single half sine-wave superimposed on rated load (JEDEC Method)		I _{FSM}	30							Amps
Maximum Forward Voltage Drop per element at 3.0A DC		V _F	1.0							Volts
Maximum CD Reverse Current at Rated DC Blocking Voltage per element	@ T _A = 25°C	I _R	10							uAmps
	@ T _A = 100°C		500							
I ² t Rating for Fusing (t<8.3ms)		I ² t	312							A ² Sec
Typical Junction Capacitance (Note1)		C _J	15							pF
Typical Thermal Resistance (Note 2)		RθJA	2.0							°C/W
Operating Temperature Range		T _J	-55 to + 125							°C
Storage Temperature Range		T _{STG}	-55 to + 150							°C

NOTES : 1. Measured at 1 MHz and applied reverse voltage of 4.0 volts

RATING AND CHARACTERISTIC CURVES

B40C5000
RS501

THRU

B380C5000
RS507

FIG.1-DERATING CURVE FOR
OUTPUT RECTIFIED CURRENT

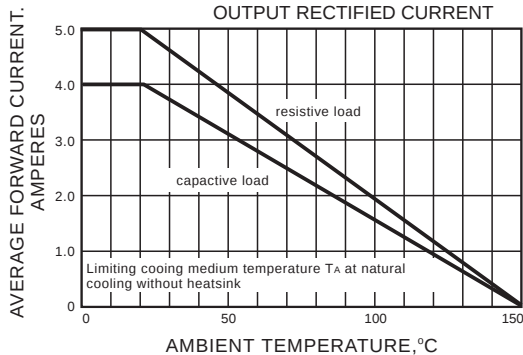


FIG.2-DERATING CURVE FOR
OUTPUT RECTIFIED CURRENT

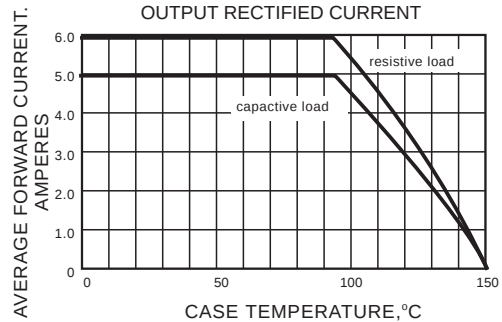


FIG.1-TYPICAL INSTANTANEOUS FORWARD
CHARACTERISTIC PER BRIDGE ELEMENT

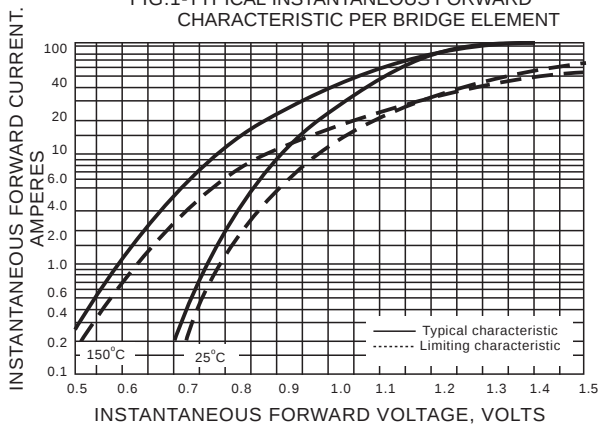


FIG.4-MAXIMUM NON-REPETITIVE PEAK
FORWARD SURGE CURRENT

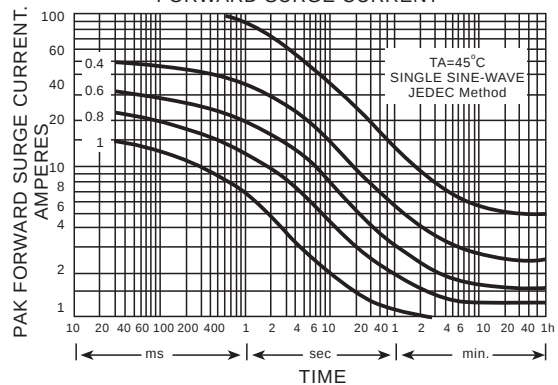


FIG.5-MAXIMUM TOTAL BRIDGE POWER
DISSIPATION

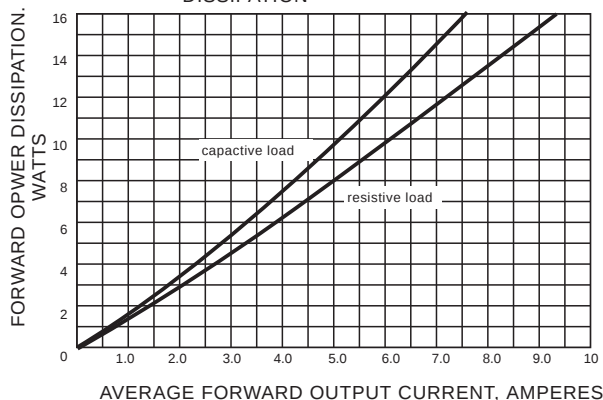
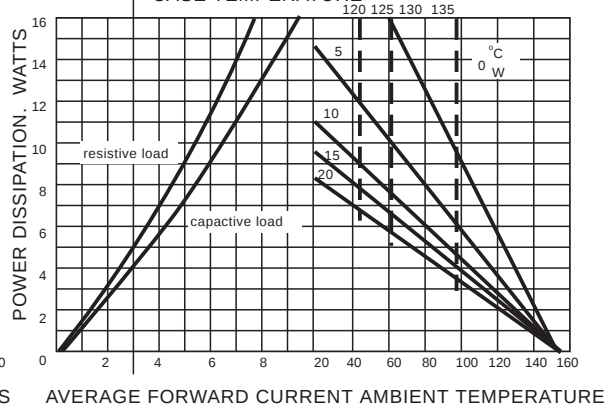


FIG.6-MEAN AVERAGE FORWARD CURRENT
CASE TEMPERATURE



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