



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

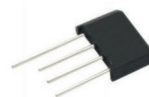
- * High surge current capability
- * Ideal for printed circuit board
- * Low forward voltage

MECHANICAL DATA

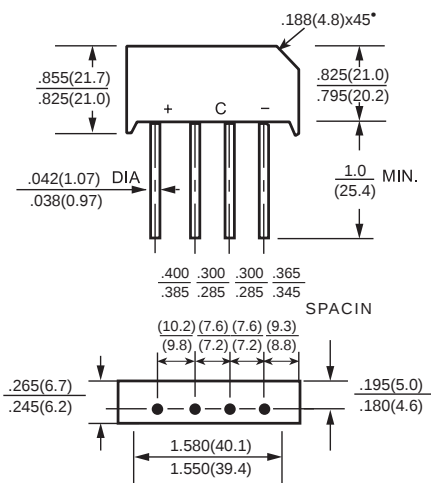
- * Case: Molded plastic
- * Epoxy: UL 94V-0 rate flame retardant
- * Lead: MIL-STD-202E, Method 208 guaranteed
- * Polarity: Symbols molded or marked on body
- * Mounting position: Any
- * Weight: 25.3 grams

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



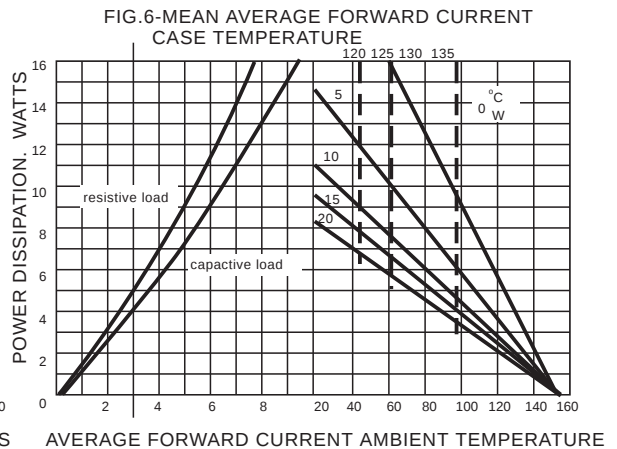
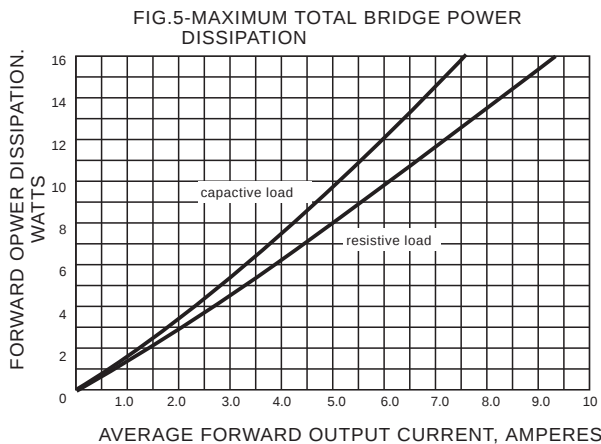
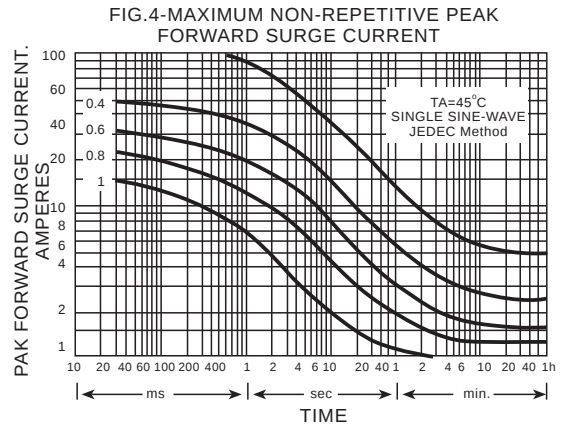
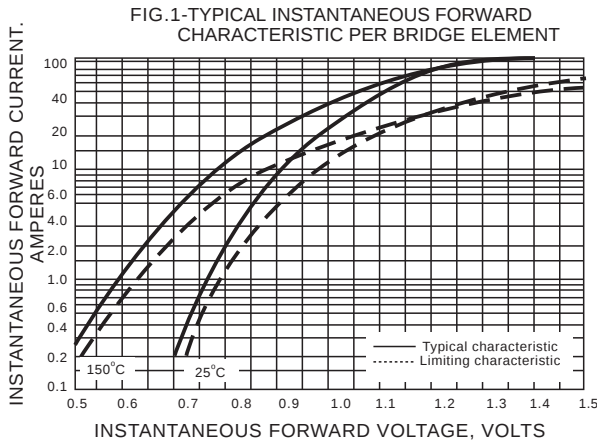
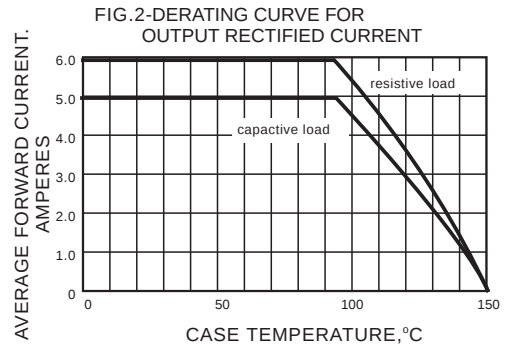
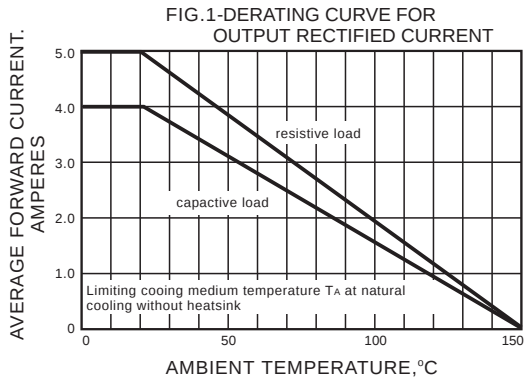
Dimensions in inches and (millimeters)

			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

2. Thermal Resistance from Junction to Ambient and from junction to lead mounted on P.C.B. with 0.47 x 0.47" (12x12mm) copper pads.

RATING AND CHARACTERISTIC CURVES (B40C5000 THRU B380C5000 RS501 RS507)



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