



**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**

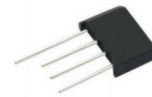
- \* High surge current capability
- \* Ideal for printed circuit board
- \* Low forward voltage

**MECHANICAL DATA**

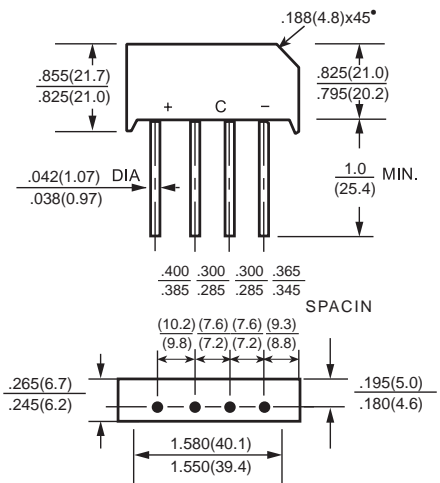
- \* Case: Molded plastic
- \* Epoxy: UL 94V-0 rate flame retardant
- \* Lead: MIL-STD-202E, Method 208 guaranteed
- \* Polarity: Symbols molded or marked on body
- \* Mounting position: Any
- \* Weight: 25.3 grams

**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



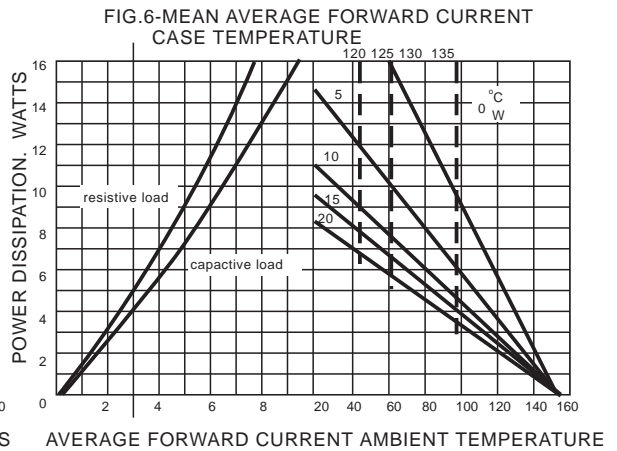
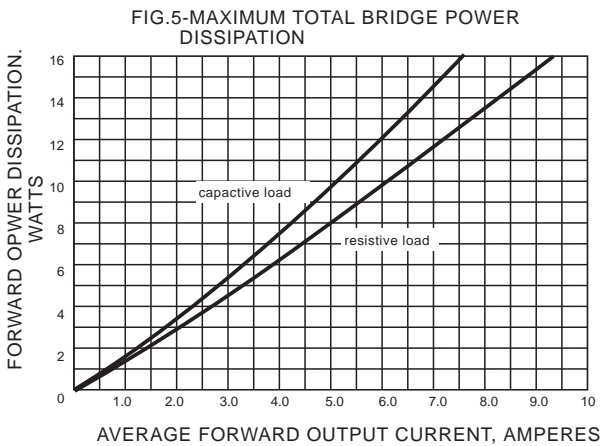
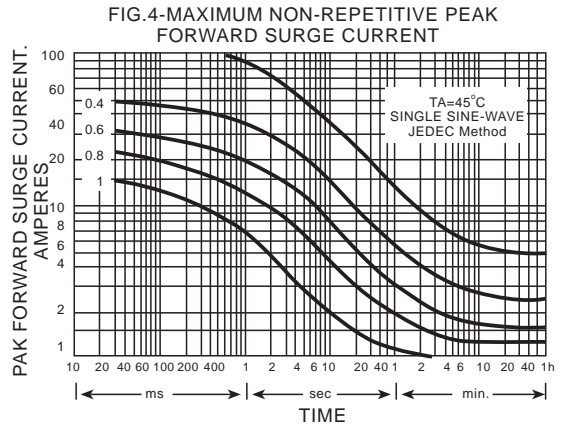
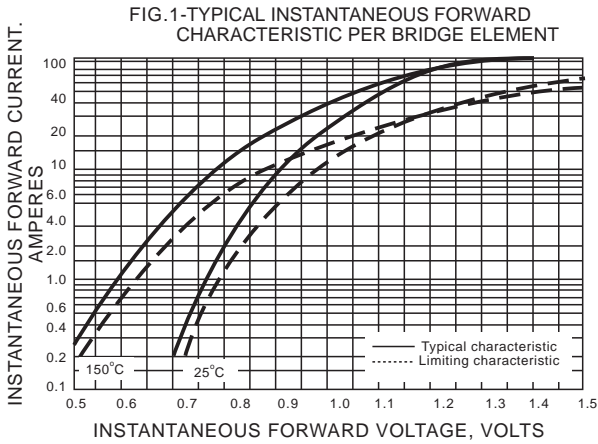
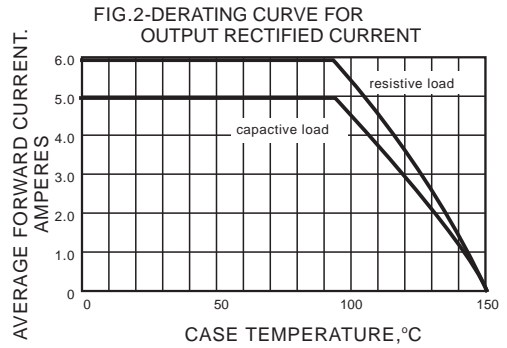
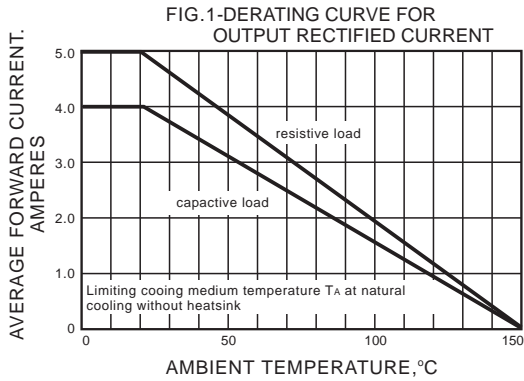
Dimensions in inches and (millimeters)

	SYMBOL	RS501	RS502	RS503	RS504	RS505	RS506	RS507	UNITS
Maximum Recurrent Peak Reverse Voltage	VRRM	50	100	200	400	600	800	1000	Volts
Maximum RMS Bridge Input Voltage	VRMS	35	70	140	280	420	560	700	Volts
Maximum DC Blocking Voltage	Vdc	50	100	200	400	600	800	1000	Volts
Maximum Average Forward Output Current at TA = 50°C	Io	5.0							Amps
Peak Forward Surge Current, 8.3 ms single half sine-wave superimposed on rated load (JEDEC Method)	IFSM	30							Amps
Maximum Forward Voltage Drop per element at 3.0A DC	VF	1.0							Volts
Maximum CD Reverse Current at Rated DC Blocking Voltage per element	IR	@TA = 25°C						10	uAmps
		@TA = 100°C						500	
I <sup>2</sup> t Rating for Fusing (t<8.3ms)	I <sup>2</sup> t	312							A <sup>2</sup> Sec
Typical Junction Capacitance ( Note1)	Cj	15							pF
Typical Thermal Resistance ( Note 2)	RθJA	2.0							°C/W
Operating Temperature Range	TJ	-55 to + 125							°C
Storage Temperature Range	TSTG	-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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