



DC COMPONENTS CO., LTD.

RECTIFIER SPECIALISTS

**TBR1500
THRU
TBR1516**

TECHNICAL SPECIFICATIONS OF THREE-PHASE SILICON BRIDGE RECTIFIER

VOLTAGE RANGE - 50 to 1600 Volts

CURRENT - 15 Amperes

FEATURES

- * Diffused Junction
- * Low Forward Voltage Drop
- * High Current Capability
- * High Reliability
- * High Surge Current Capability
- * Ideal for Printed Circuit Boards

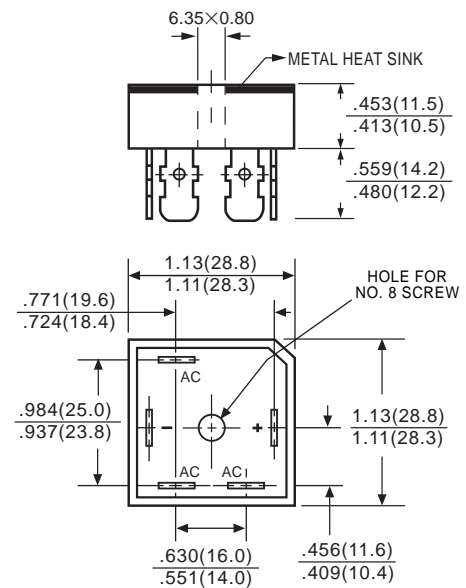
MECHANICAL DATA

- * Case: Molded plastic with heatsink
- * Epoxy: UL 94V-0 rate flame retardant
- * Terminals: Plated .25"(6.35mm) Faston lugs, Solderable per MIL-STD-202E, Method 208 guaranteed
- * Polarity: As marked
- * Mounting position: Any
- * Weight: 20 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%.

TBR



Dimensions in millimeters

		SYMBOL	TBR 1500	TBR 1501	TBR 1502	TBR 1504	TBR 1506	TBR 1508	TBR 1510	TBR 1512	TBR 1514	TBR 1516	UNITS
Maximum Recurrent Peak Reverse Voltage & DC Blocking Voltage		V _{RRM, VDC}	50	100	200	400	600	800	1000	1200	1400	1600	Volts
Maximum RMS Bridge Input Voltage		V _{RMS}	35	70	140	280	420	560	700	840	980	1120	Volts
Peak Non-Repetitive Reverse Voltage		V _{RSM}	75	150	275	500	725	900	1100	1300	1500	1700	Volts
Maximum Average Forward Rectified Output Current at T _c = 50°C		I _o	15										Amps
Non-Repetitive Peak Forward Surge Current	No Voltage Reapplied	t=8.3ms at 60Hz	375										Amps
		t=10ms at 50Hz	360										
	100% V _{RRM} Reapplied	t=8.3ms at 60Hz	314										
		t=10ms at 50Hz	300										
Forward Voltage(per element) @T _J =25°C, @I _{FM} =40A _{PK} per single junction		V _F	1.4										Volts
Maximum DC Reverse Current at Rated DC Blocking Voltage per element		@T _J = 25°C	10										μAmps
		@T _J = 125°C	5.0										mAmps
I ² t Rating for Fusing		I ² t	580										A ² Sec
			635										
			410										
			450										
RMS Isolation Voltage from Case to Lead		V _{ISO}	2500										Volts
Thermal Resistance Case to Heatsink Mounting Surface, Smooth, Flat and Greased		R _{θCS}	0.2										K/W
Thermal Resistance Junction to Case at DC Operation per Bridge		R _{θJC}	1.6										K/W
Operating and Storage Temperature Range		T _{J, TSTG}	-40 to +150										°C

RATING AND CHARACTERISTIC CURVES (TBR1500 THRU TBR1516)

FIG. 1 - MAXIMUM NON-REPETITIVE SURGE CURRENT

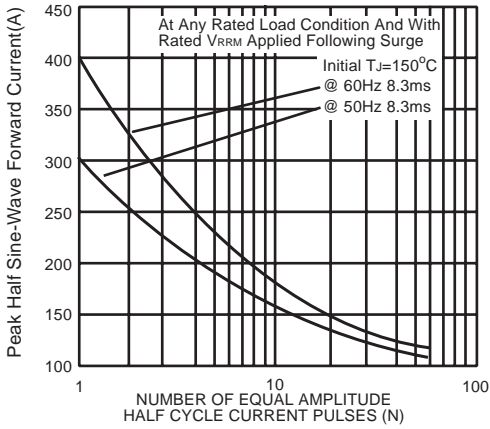


FIG. 2 - MAXIMUM NON-REPETITIVE SURGE CURRENT

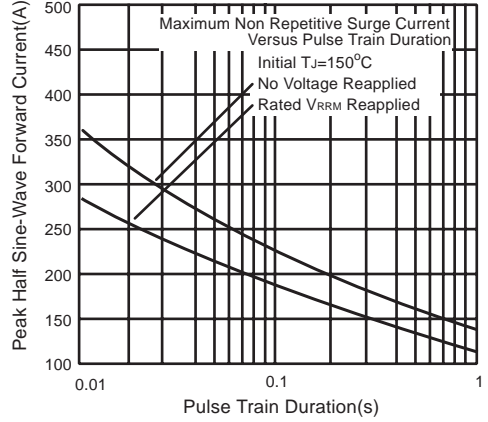


FIG. 3 - TOTAL POWER LOSS CHARACTERISTICS

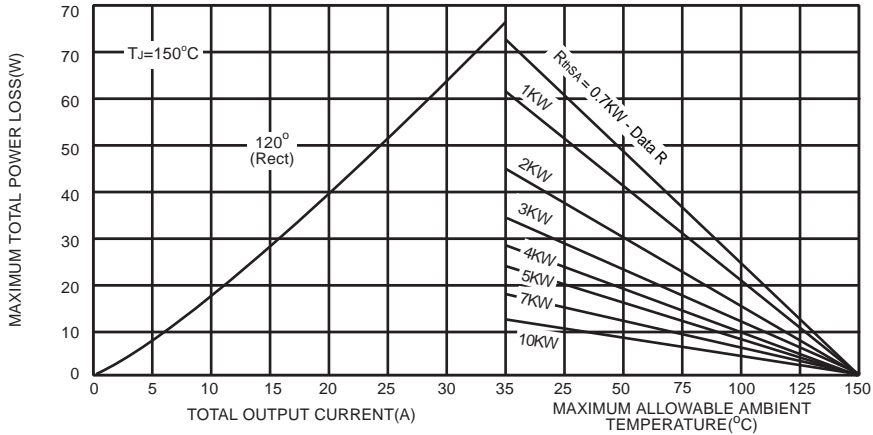


FIG. 4 - FORWARD VOLTAGE DROP CHARACTERISTICS

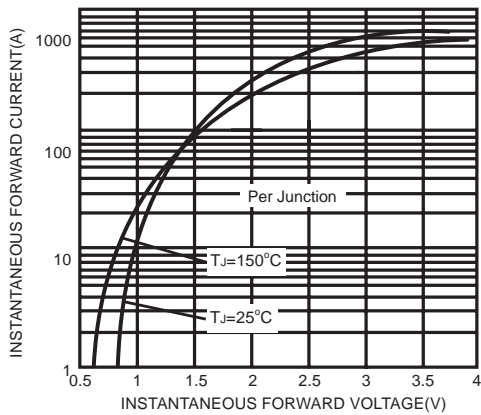
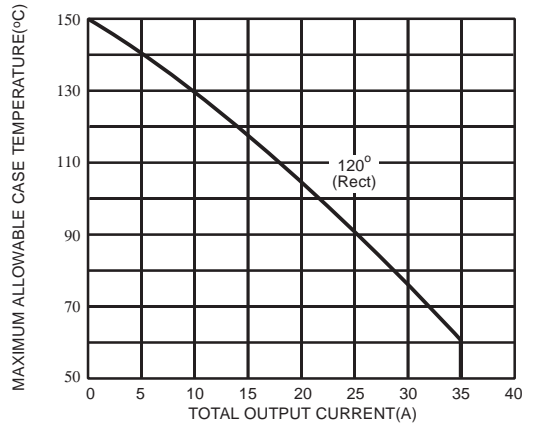


FIG. 5 - CURRENT RATINGS CHARACTERISTICS



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