



DC COMPONENTS CO., LTD.

RECTIFIER SPECIALISTS

**TBR3500
THRU
TBR3516**

TECHNICAL SPECIFICATIONS OF THREE-PHASE SILICON BRIDGE RECTIFIER

VOLTAGE RANGE - 50 to 1600 Volts

CURRENT - 35 Amperes

FEATURES

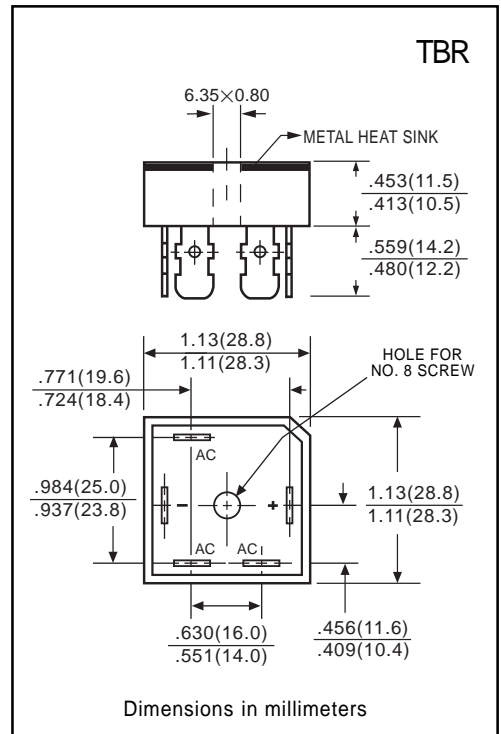
- * Diffused Junction
- * Low Forward Voltage Drop
- * High Current Capability
- * High Reliability
- * High Surge Current Capability
- * Ideal for Printed Circuit Boards

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(approx.)

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%.



		SYMBOL	TBR 3500	TBR 3501	TBR 3502	TBR 3504	TBR 3506	TBR 3508	TBR 3510	TBR 3512	TBR 3514	TBR 3516	UNITS
Maximum Recurrent Peak Reverse Voltage & DC Blocking Voltage		V_{RRM}, V_{DC}	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-Repitative Reverse Voltage		V_{RSM}	75	150	275	500	725	900	1100	1300	1500	1700	Volts
Maximum Average Forward Rectified Output Current at $T_c = 50^\circ C$		I_o	35									Amps	
Non-Repitative Peak Forward Surge Current	No Voltage Reapplied	$t=8.3ms$ at 60Hz	500									Amps	
		$t=10ms$ at 50Hz	475										
	100% V_{RRM} Reapplied	$t=8.3ms$ at 60Hz	420										
		$t=10ms$ at 50Hz	400										
Forward Voltage(per element) @ $T_J=25^\circ C$, @ $I_{FM}=40A_{pk}$ per single junction		V_F	1.19									Volts	
Maximum DC Reverse Current at Rated DC Blocking Voltage per element		@ $T_J = 25^\circ C$	10									μA	
		@ $T_J = 125^\circ C$	5.0									mAmps	
I^2t Rating for Fusing	No Voltage Reapplied	$t=8.3ms$ at 60Hz	1030									A ² Sec	
		$t=10ms$ at 50Hz	1130										
	100% V_{RRM} Reapplied	$t=8.3ms$ at 60Hz	730										
		$t=10ms$ at 50Hz	800										
RMS Isolation Voltage from Case to Lead		V_{ISO}	2500									Volts	
Thermal Resistance Case to Heatsink Mounting Surface, Smooth, Flat and Greased		$R_{\theta CS}$	0.2									K/W	
Thermal Resistance Junction to Case at DC Operation per Bridge		$R_{\theta JC}$	1.16									K/W	
Operating and Storage Temperature Range		T_J, T_{STG}	-40 to +150									$^\circ C$	

RATING AND CHARACTERISTIC CURVES (TBR3500 THRU TBR3516)

FIG. 1 - MAXIMUM NON-REPETITIVE SURGE CURRENT

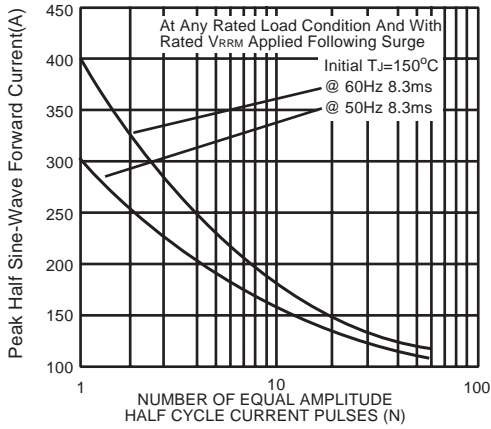


FIG. 2 - MAXIMUM NON-REPETITIVE SURGE CURRENT

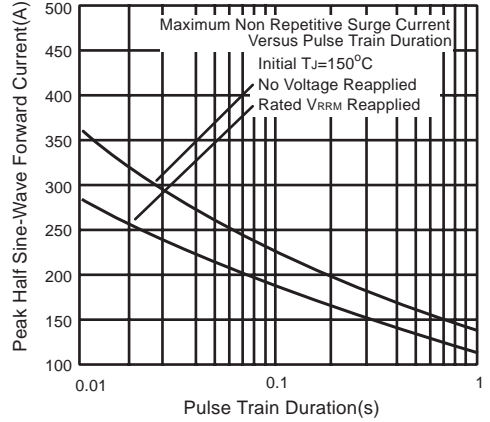


FIG. 3 - TOTAL POWER LOSS CHARACTERISTICS

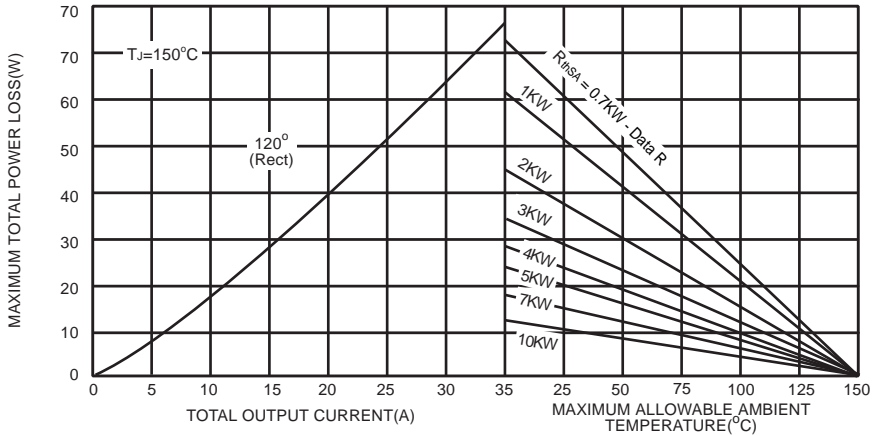


FIG. 4 - FORWARD VOLTAGE DROP CHARACTERISTICS

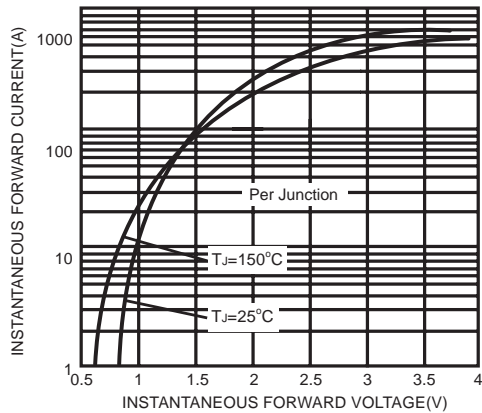
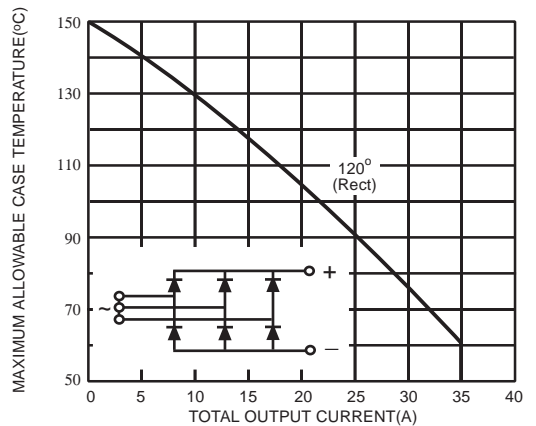


FIG. 5 - CURRENT RATINGS CHARACTERISTICS



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