



DC COMPONENTS CO., LTD.

RECTIFIER SPECIALISTS

**TBR2500
THRU
TBR2516**

TECHNICAL SPECIFICATIONS OF THREE-PHASE SILICON BRIDGE RECTIFIER

VOLTAGE RANGE - 50 to 1600 Volts

CURRENT - 25 Amperes

FEATURES

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

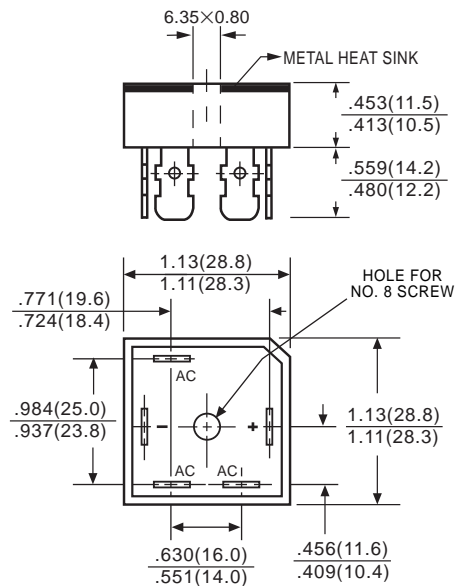
MECHANICAL DATA

- * 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%.

TBR



Dimensions in millimeters

		SYMBOL	TBR 2500	TBR 2501	TBR 2502	TBR 2504	TBR 2506	TBR 2508	TBR 2510	TBR 2512	TBR 2514	TBR 2516	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	25										Amps
Non-Repitative 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) @ $T_J=25^\circ C$, @ $I_{FM}=40A_{pk}$ per single junction		V_F	1.26										Volts
Maximum DC Reverse Current at Rated DC Blocking Voltage per element		@ $T_J = 25^\circ C$	10										μ Amps
		@ $T_J = 125^\circ C$	5.0										mAmps
I^2t Rating for Fusing	No Voltage Reapplied	$t=8.3ms$ at 60Hz	580										A ² Sec
		$t=10ms$ at 50Hz	635										
	100% V_{RRM} Reapplied	$t=8.3ms$ at 60Hz	410										
		$t=10ms$ at 50Hz	450										
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		$R_{\theta JC}$	1.42										K/W
Operating and Storage Temperature Range		T_J, T_{STG}	-40 to +150										$^\circ C$

RATING AND CHARACTERISTIC CURVES (TBR2500 THRU TBR2516)

FIG. 1 - MAXIMUM NON-REPETITIVE SURGE CURRENT

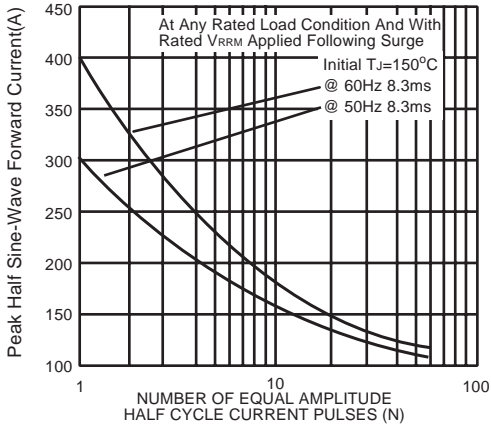


FIG. 2 - MAXIMUM NON-REPETITIVE SURGE CURRENT

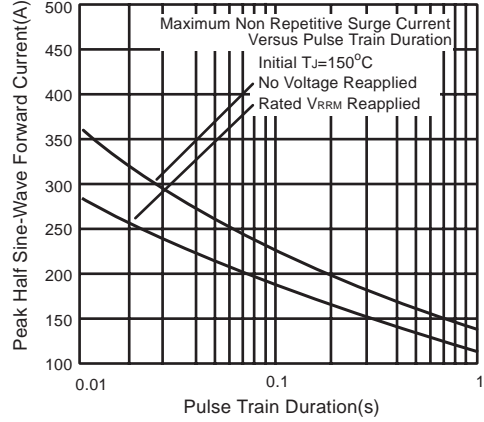


FIG. 3 - TOTAL POWER LOSS CHARACTERISTICS

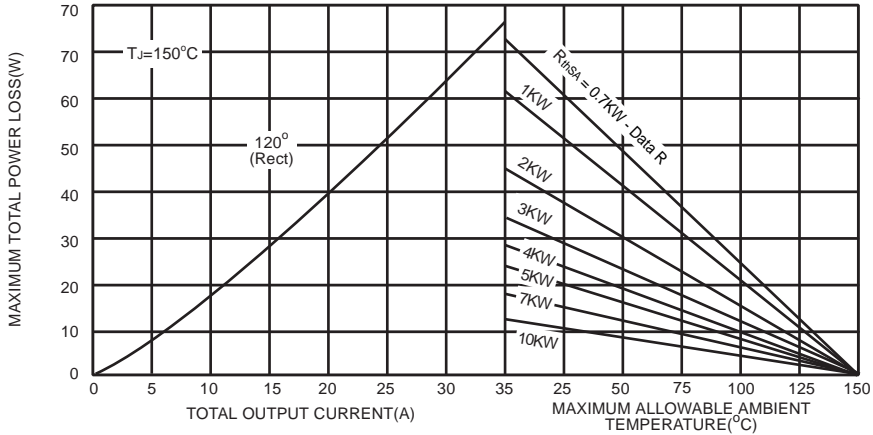


FIG. 4 - FORWARD VOLTAGE DROP CHARACTERISTICS

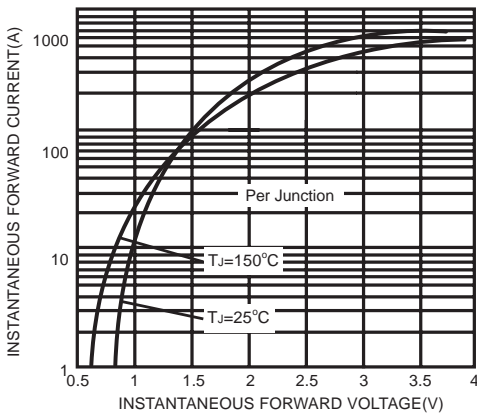
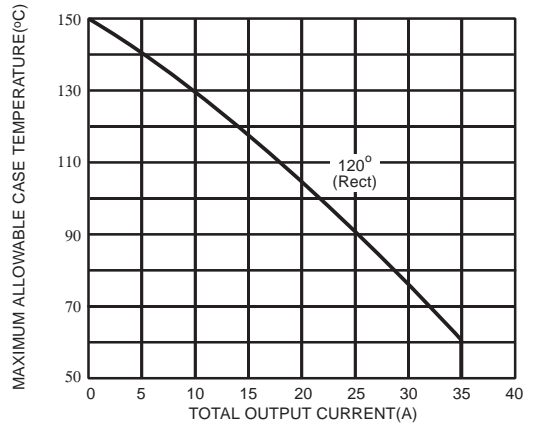


FIG. 5 - CURRET RATINGS CHARACTERISTICS



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