

SB15005 THRU SB1510

15.0 AMP SILICON BRIDGE

FEATURES

- * Universals 4-way terminals: snap-on, wrap-around, solder or P.C. board mounting
- * This series is UL recognized under component index, file number E127707
- * High overload surge RATING TO 300A
- * High case dielectric strength to 2500V
- * Typical IR less than 0.1 uA
- * Terminals solderable per MIL-STD-202 method 208
- * High temperature soldering guaranteed : 265°C/10 seconds/.375"(9.5mm)lead lengths at 5 lbs (2.3kg) tension

MECHANICAL DATA

- * Case: Void-free plastic package
- * Terminal: Either plated .25"(6.35mm). Faston or plated copper lead .04"(1.02mm)diameter. Suffix letter "W" added to indicate leads
- * Polarity: Polarity symbols marked on case
- * Mounting position: Bolt down on keat sink for maximum heat transfer efficiency
- * Weight: 0.706 ounce, 20 grams

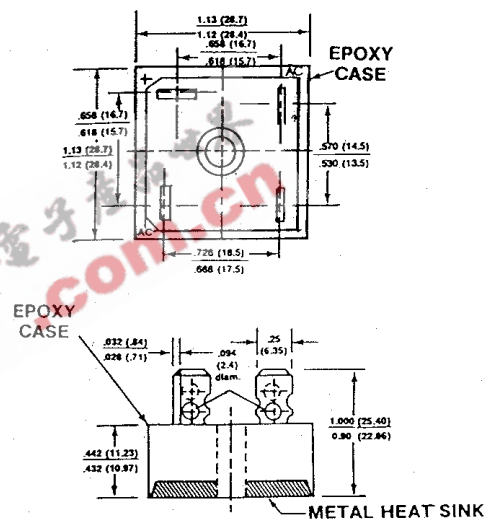
VOLTAGE RANGE

50 to 1000 Volts

CURRENT

15.0 Amperes

SB-15



Dimensions in inches and (millimeters)

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%.

	SYMBOLS	SB15005	SB1501	SB1502	SB1504	SB1506	SB1508	SB1510	UNITS
Maximum Recurrent Peak Reverse Voltage	V _{rrm}	50	100	200	400	600	800	1000	V
Maximum RMS Voltage	V _{rms}	35	70	140	280	420	560	700	V
Maximum DC Blocking Voltage	V _{dc}	50	100	200	400	600	800	1000	V
Maximum Average Forward Rectifier Output Current at T _c =55°C (Note1)	I(AV)	15.0							A
Peak Forward Surge Current 8.3 ms single half sine wave superimposed on rated load (JEDEC method)	I _{fsm}	300.0							A
Rating for fusing(t<8.35ms)	I ² t	375.0							A ² s
Maximum instantaneous Forward Voltage drop per Bridge Element at 7.5A	V _F	1.2							V
Maximum Reverse Current at Rated DC Blocking Voltage per element	@T _A =25°C	10.0							uA
	@T _C =100°C	500.0							uA
Isolation Voltage from Case to Leads		2500							V _{ac}
Typical Thermal Resistance (Note1)	R _{THjc}	2.0							°C/W
Operating and Storage Temperature Range	T _J , T _{stg}	-65 TO +150							°C

NOTES :

1. Bridge mounted on a 5" * 4" * 3" (12.8cm * 10.2cm * 7.3cm) AL Wing Plate.

RATINGS AND CHARACTERISTIC CURVES SB15005 THRU SB1510

FIG. 1 MAXIMUM OUTPUT RECTIFIED CURRENT

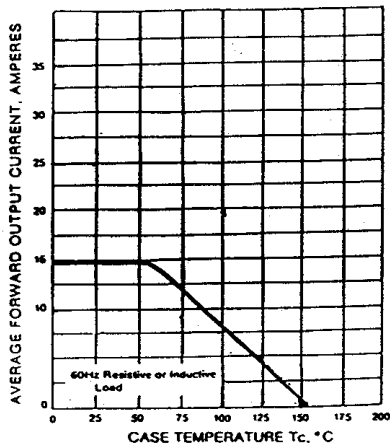


FIG. 2 MAXIMUM POWER DISSIPATION

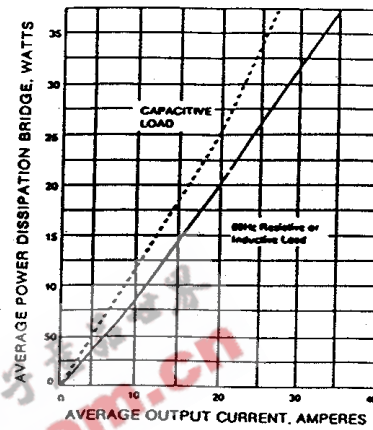


FIG. 3 TYPICAL REVERSE CHARACTERISTICS

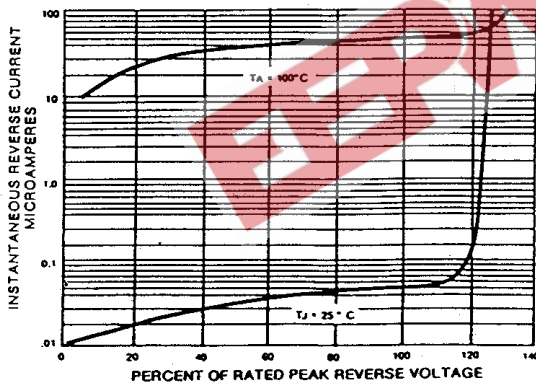


FIG. 4

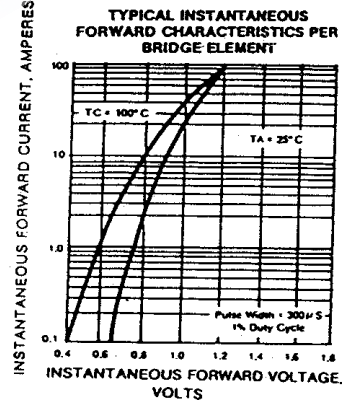


FIG. 5 MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

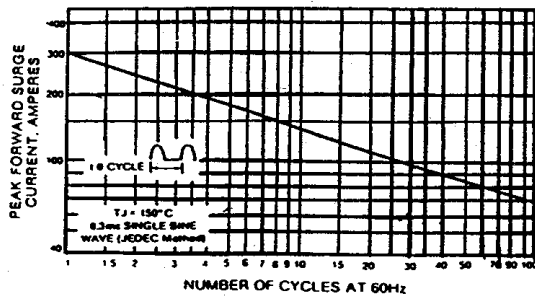
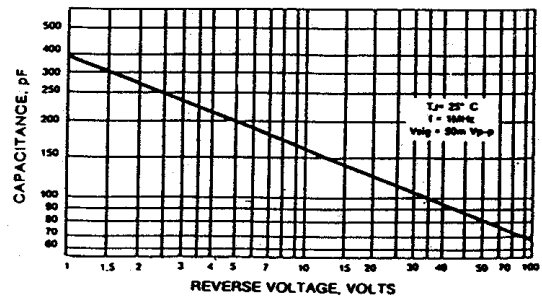


FIG. 6

TYPICAL JUNCTION CAPACITANCE PER BRIDGE ELEMENT



SB15005W THRU SB1510W

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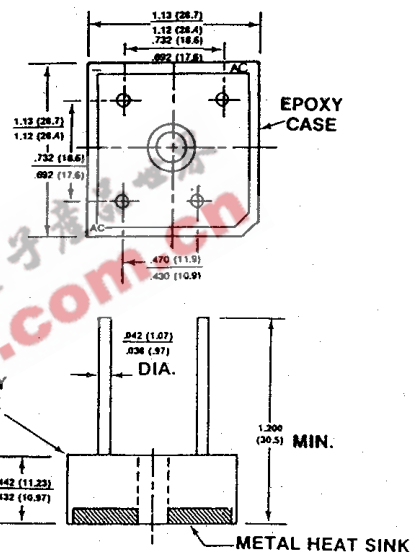
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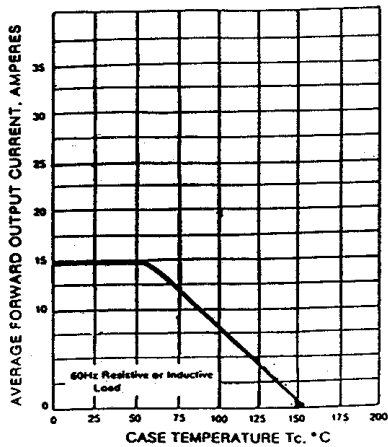


FIG. 2 MAXIMUM POWER DISSIPATION

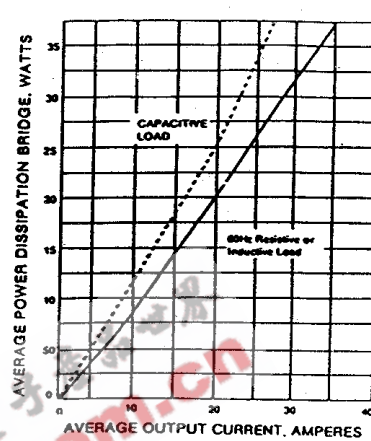


FIG. 3 TYPICAL REVERSE CHARACTERISTICS

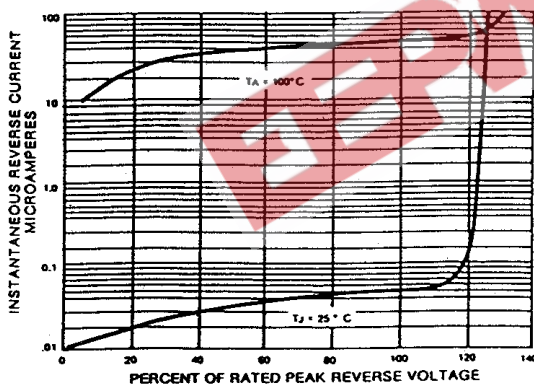


FIG. 4 TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS PER BRIDGE ELEMENT

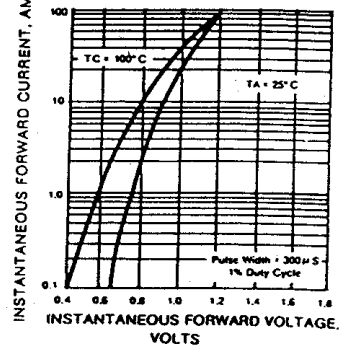


FIG. 5 MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

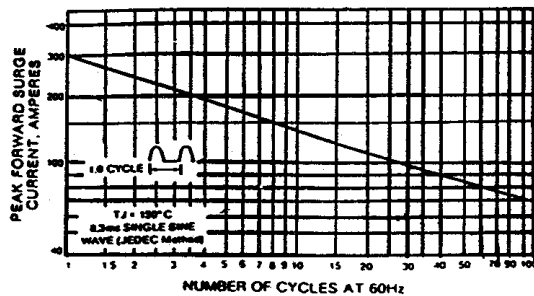


FIG. 6 TYPICAL JUNCTION CAPACITANCE PER BRIDGE ELEMENT

