

## SB25005 THRU SB2510

### 25.0 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 heat sink for maximum heat transfer efficiency
- \* Weight: 0.706 ounce, 20 grams

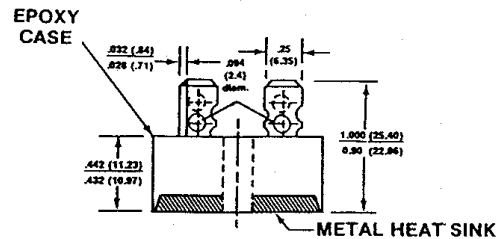
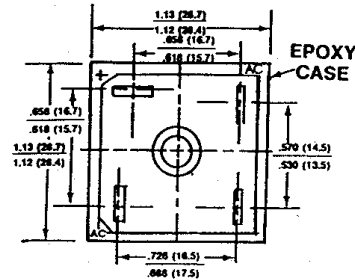
#### VOLTAGE RANGE

50 to 1000 Volts

#### CURRENT

25.0 Amperes

#### SB-25



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	SB25005	SB2501	SB2502	SB2504	SB2506	SB2508	SB2510	UNITS
Maximum Recurrent Peak Reverse Voltage	V <sub>rrm</sub>	50	100	200	400	600	800	1000	V
Maximum RMS Voltage	V <sub>rms</sub>	35	70	140	280	420	560	700	V
Maximum DC Blocking Voltage	V <sub>dc</sub>	50	100	200	400	600	800	1000	V
Maximum Average Forward Rectifier Output Current at T <sub>c</sub> =55°C	I(AV)	25.0							A
Peak Forward Surge Current 8.3 ms single half sine wave superimposed on rated load (JEDEC method)	I <sub>fsm</sub>	300.0							A
Rating for fusing(t<8.35ms)	I <sup>2</sup> t	375.0							A <sup>2</sup> s
Maximum Instantaneous Forward Voltage drop per Bridge Element at 12.5A	V <sub>F</sub>	1.2							V
Maximum Reverse Current at Rated DC @T <sub>A</sub> =25°C	I <sub>R</sub>	10.0							uA
Blocking Voltage per element @T <sub>C</sub> =100°C	HTIR	500.0							uA
Isolation Voltage from Case to Leads		2500							V <sub>ac</sub>
Typical Thermal Resistance (Note1)	R <sub>THjc</sub>	2.0							°C/W
Operating and Storage Temperature Range	T <sub>J</sub> , T <sub>stg</sub>	-65 TO +150							°C

#### NOTES :

1. Bridge mounted on a 5"×6"×4.9"(12.8cm×15.2cm×12.4cm)AL Wing Plate.

## RATINGS AND CHARACTERISTIC CURVES SB25005 THRU SB2510

FIG. 1 MAXIMUM OUTPUT RECTIFIED CURRENT

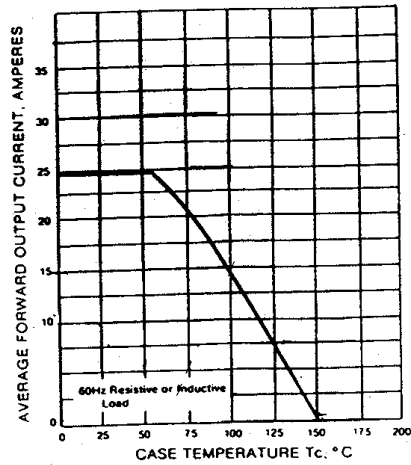


FIG. 2 MAXIMUM POWER DISSIPATION

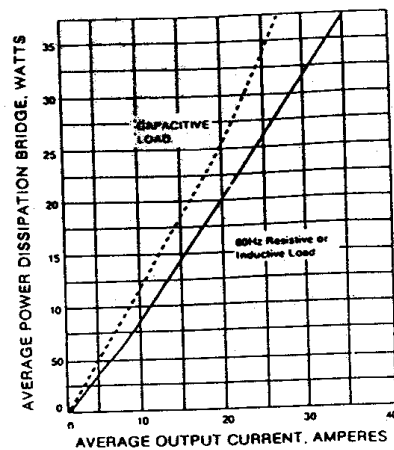


FIG. 3 TYPICAL REVERSE CHARACTERISTICS

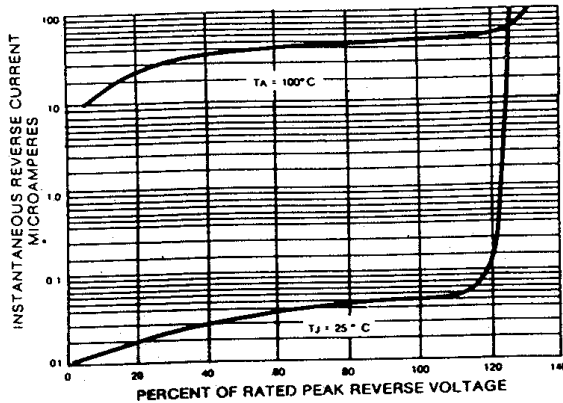


FIG. 4

TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS PER BRIDGE ELEMENT

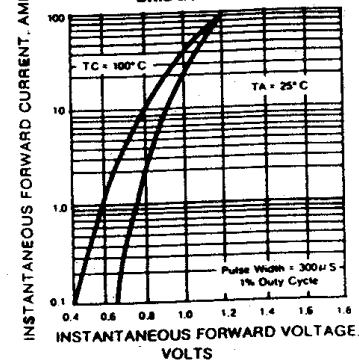


FIG. 5 MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

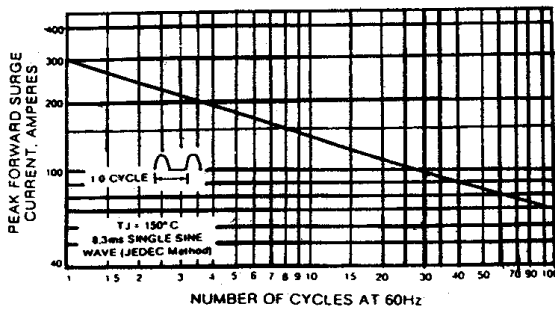
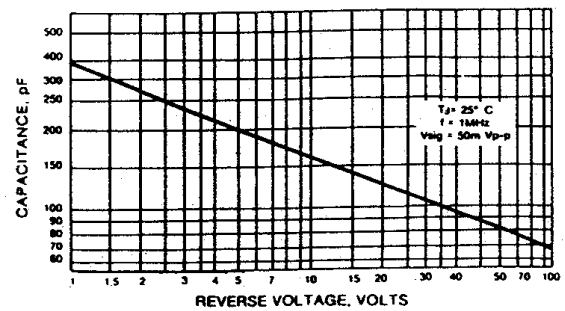


FIG. 6 TYPICAL JUNCTION CAPACITANCE PER BRIDGE ELEMENT



## SB25005W THRU SB2510W

### 25.0 AMP SILICON BRIDGE

#### FEATURES

- \* Universal 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 heat sink for maximum heat transfer efficiency
- \* Weight: 0.706 ounce, 20 grams

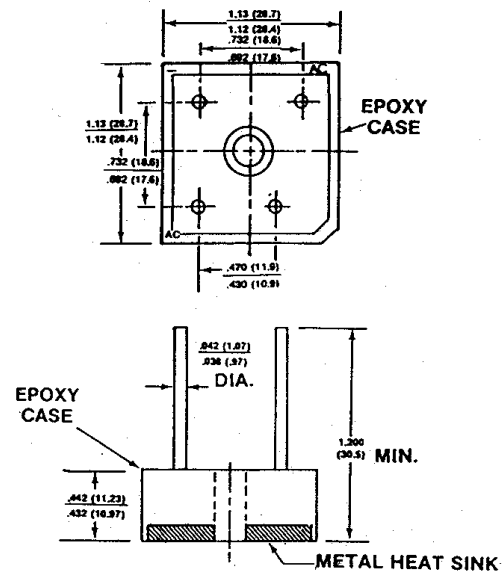
#### VOLTAGE RANGE

50 to 1000 Volts

#### CURRENT

25.0 Amperes

#### SB-25



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	SB25005W	SB2501W	SB2502W	SB2504W	SB2506W	SB2508W	SB2510W	UNITS
Maximum Recurrent Peak Reverse Voltage	V <sub>rrm</sub>	50	100	200	400	600	800	1000	V
Maximum RMS Voltage	V <sub>rms</sub>	35	70	140	280	420	560	700	V
Maximum DC Blocking Voltage	V <sub>dc</sub>	50	100	200	400	600	800	1000	V
Maximum Average Forward Rectifier Output Current at T <sub>c</sub> =55°C	I(AV)	25.0							A
Peak Forward Surge Current 8.3 ms single half sine wave superimposed on rated load (JEDEC method)	I <sub>fsm</sub>	300.0							A
Rating for fusing(t<8.35ms)	I <sup>2</sup> t	375.0							A <sup>2</sup> s
Maximum instantaneous Forward Voltage drop per Bridge Element at 12.5A	V <sub>F</sub>	1.2							V
Maximum Reverse Current at Rated DC Blocking Voltage per element	I <sub>R</sub>	10.0							uA
	HTIR	500.0							uA
Isolation Voltage from Case to Leads		2500							V <sub>ac</sub>
Typical Thermal Resistance (Note 1)	R <sub>THjc</sub>	2.0							°C/W
Operating and Storage Temperature Range	T <sub>J</sub> , T <sub>stg</sub>	-65 TO +150							°C

#### NOTES :

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## RATINGS AND CHARACTERISTIC CURVES SB25005W THRU SB2510W

FIG. 1 MAXIMUM OUTPUT RECTIFIED CURRENT

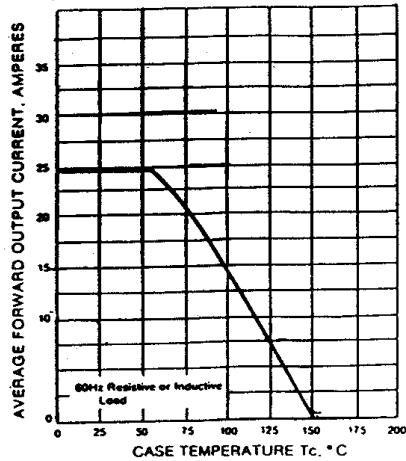


FIG. 2 MAXIMUM POWER DISSIPATION

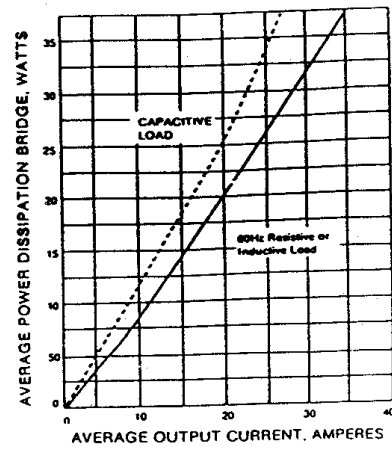


FIG. 3 TYPICAL REVERSE CHARACTERISTICS

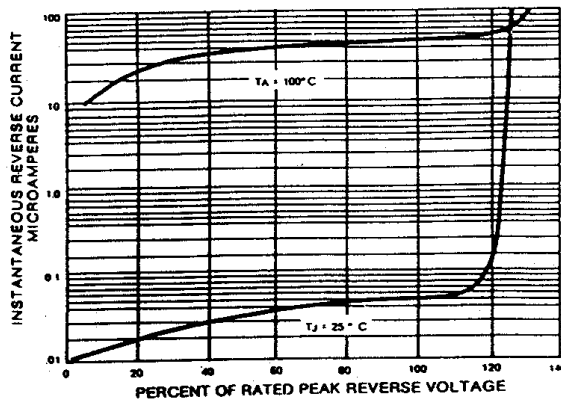


FIG. 4

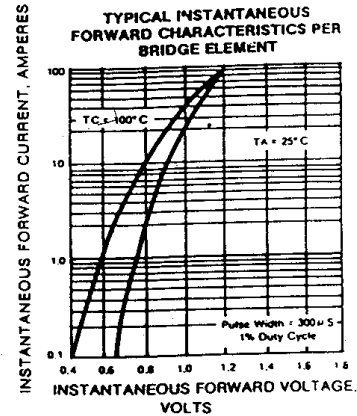


FIG. 5 MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

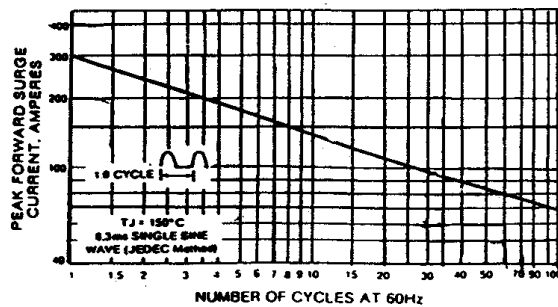


FIG. 6 TYPICAL JUNCTION CAPACITANCE PER BRIDGE ELEMENT

