



DC COMPONENTS CO., LTD.

RECTIFIER SPECIALISTS

BR1505W
THRU
BR1510W

TECHNICAL SPECIFICATIONS OF SINGLE-PHASE SILICON BRIDGE RECTIFIER
VOLTAGE RANGE - 50 to 1000 Volts
CURRENT - 15 Amperes

FEATURES

- * Plastic case with heatsink for Maximum Heat Dissipation
- * Surge overload ratings - 300 Amperes
- * Low forward voltage drop

MECHANICAL DATA

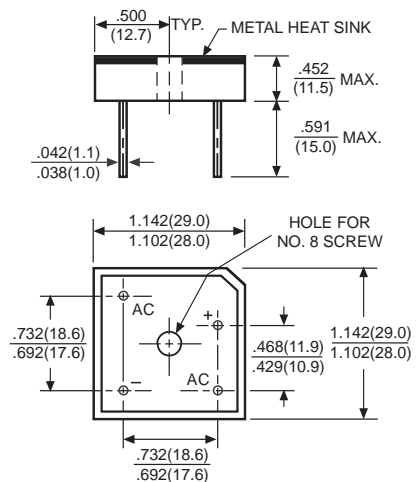
- * Case: Molded plastic with heatsink
- * Epoxy: UL 94V-0 rate flame retardant
- * Lead: MIL-STD-202E, Method 208 guaranteed
- * Polarity: As marked
- * Mounting position: Any
- * Weight: 30 grams

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%.



BR-25W



Dimensions in inches and (millimeters)

| | | SYMBOL | BR1505W | BR151W | BR152W | BR154W | BR156W | BR158W | BR1510W | UNITS | |
|---|--|-----------------------------------|---------|--------|--------|--------|-------------|--------|---------|-------|--------------------|
| Maximum Recurrent Peak Reverse Voltage | | V _{RRM} | 50 | 100 | 200 | 400 | 600 | 800 | 1000 | Volts | |
| Maximum RMS Bridge Input Voltage | | V _{RMS} | 35 | 70 | 140 | 280 | 420 | 560 | 700 | Volts | |
| Maximum DC Blocking Voltage | | V _{DC} | 50 | 100 | 200 | 400 | 600 | 800 | 1000 | Volts | |
| Maximum Average Forward Rectified Output Current at T _A = 55 °C | | I _O | 15 | | | | | | | | Amps |
| Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC Method) | | I _{FSM} | | | | | 300 | | | | Amps |
| Maximum Forward Voltage Drop per element at 7.5A DC | | V _F | | | | | 1.1 | | | | Volts |
| Maximum DC Reverse Current at Rated | | I _R | | | | | 10 | | | | µAmps |
| DC Blocking Voltage per element | | | | | | | 500 | | | | |
| I ² t Rating for Fusing (t<8.3ms) | | I ² t | | | | | 374 | | | | A ² Sec |
| Typical Junction Capacitance (Note1) | | C _J | | | | | 300 | | | | pF |
| Typical Thermal Resistance (Note 2) | | RθJC | | | | | 2.5 | | | | °C/W |
| Operating and Storage Temperature Range | | T _J , T _{STG} | | | | | -55 to +150 | | | | °C |

NOTES : 1.Measured at 1 MHz and applied reverse voltage of 4.0 volts
2.Thermal Resistance from Junction to Case per leg.

RATING AND CHARACTERISTIC CURVES (BR1505W THRU BR1510W)

FIG. 1 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

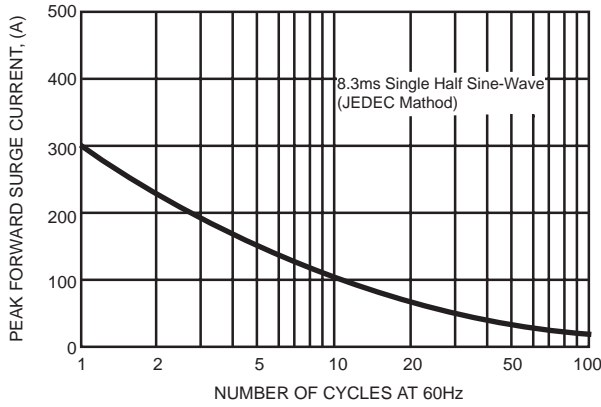


FIG. 2 - TYPICAL FORWARD CURRENT DERATING CURVE

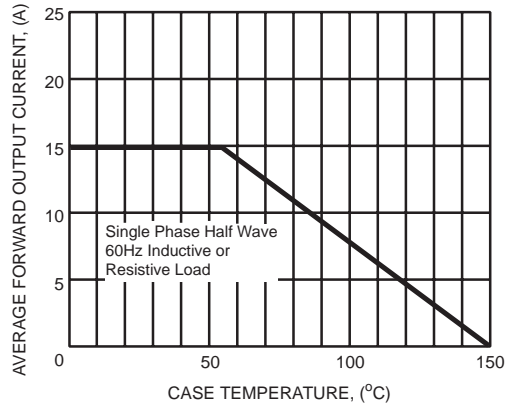


FIG. 3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

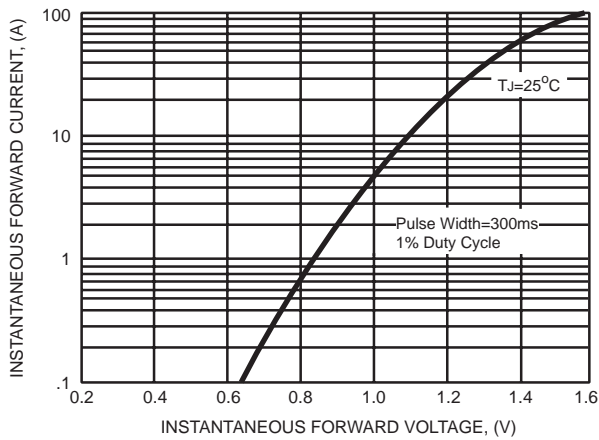
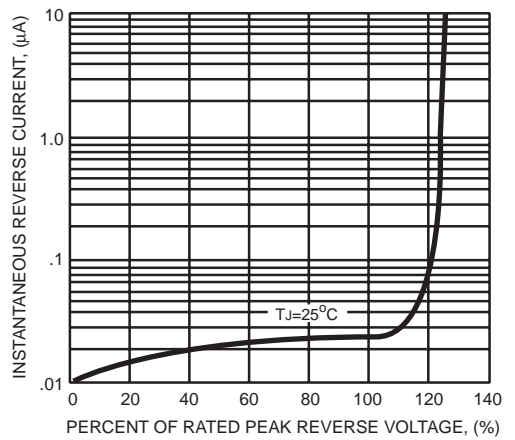


FIG. 4 - TYPICAL REVERSE CHARACTERISTICS



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