



FORWARD INTERNATIONAL ELECTRONICS LTD.

**SEMICONDUCTOR
TECHNICAL DATA**

**BR2505W
THRU
BR2510W**

TECHNICAL SPECIFICATIONS OF SINGLE-PHASE SILICON BRIDGE RECTIFIER
VOLTAGE RANGE - 50 to 1000 Volts **CURRENT - 25 Amperes**

FEATURES

- * Plastic case with heatsink for Maximum Heat Dissipation
- * Surge overload ratings-400 Amperes
- * Low forward voltage drop

MECHANICAL DATA

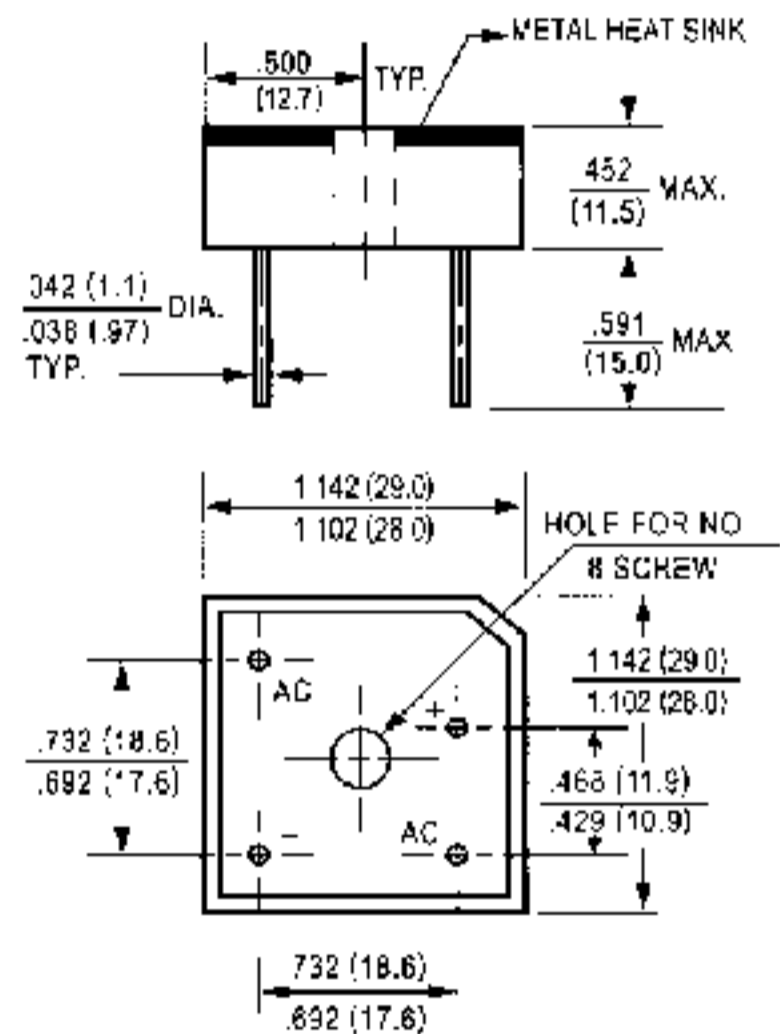
- * Case: Molded plastic with heatsink
- * Epoxy: UL 94V-0 rate flame retardant
- * Lead: MIL-STD-202E. Method 208 guaranteed
- * Polarity: As marked
- * Mounting position: Any
- * Weight: 30 grams

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



	SYMBOL	BR2505W	BR251W	BR252W	BR254W	BR256W	BR258W	BR2510W	UNITS
Maximum Recurrent Peak Reverse Voltage	VRRM	50	100	200	400	600	800	1000	Volts
Maximum RMS Bridge Input Voltage	VRMS	35	70	140	280	420	560	700	Volts
Maximum DC Blocking Voltage	VDC	50	100	200	400	600	800	1000	Volts
Maximum Average Forward Rectified Output Current at Tc = 55°C	IF	25							Amps
Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC Method)	IFSM	400							Amps
Maximum Forward Voltage Drop per element at 12.5A DC	VF	1.1							Volts
Maximum DC Reverse Current at Rated DC Blocking Voltage per element	IR	10							uAmps
	IR	500							uAmps
I ² t Rating for Fusing (t = 3.3ms)	I ² t	374							A ² Sec
Typical Junction Capacitance (Note 1)	CJ	300							pF
Typical Thermal Resistance (Note 2)	RRJC	2.5							°C/W
Operating and Storage Temperature Range	TJ, Tstg	-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 (BR2505W THRU BR2510W)

FIG. 1 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

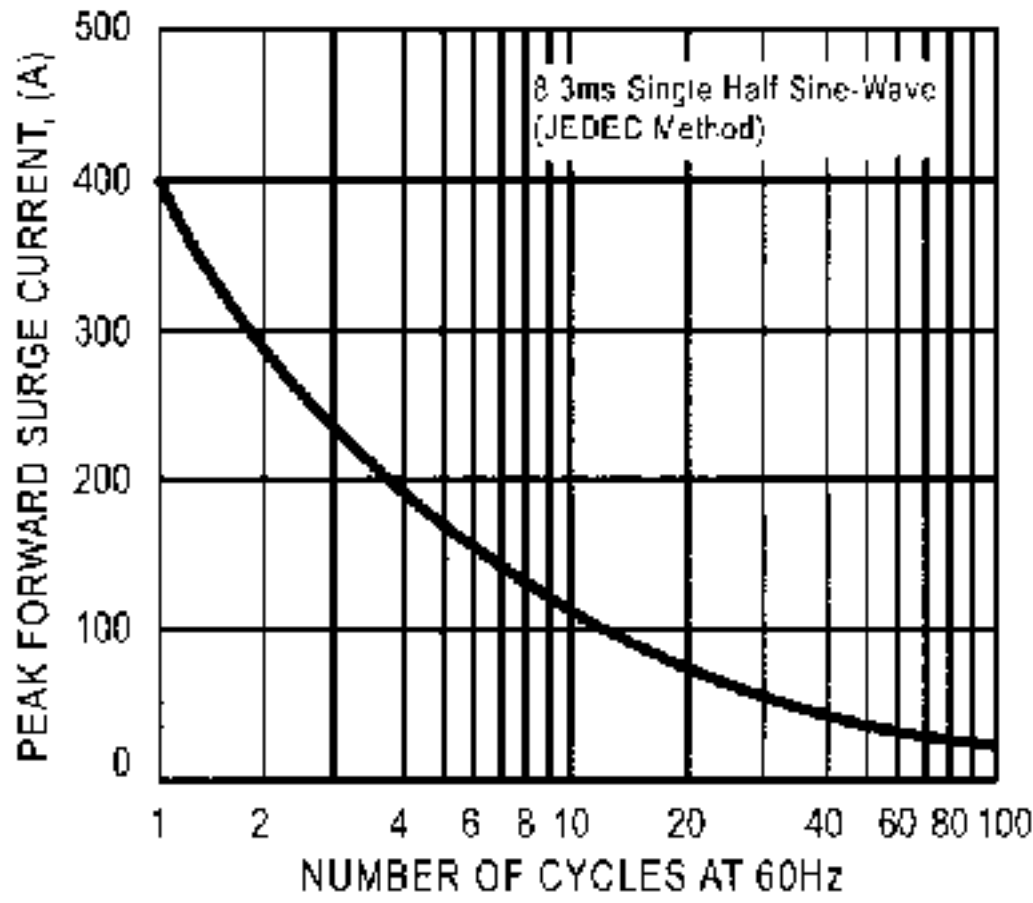


FIG. 2 - TYPICAL FORWARD CURRENT DERATING CURVE

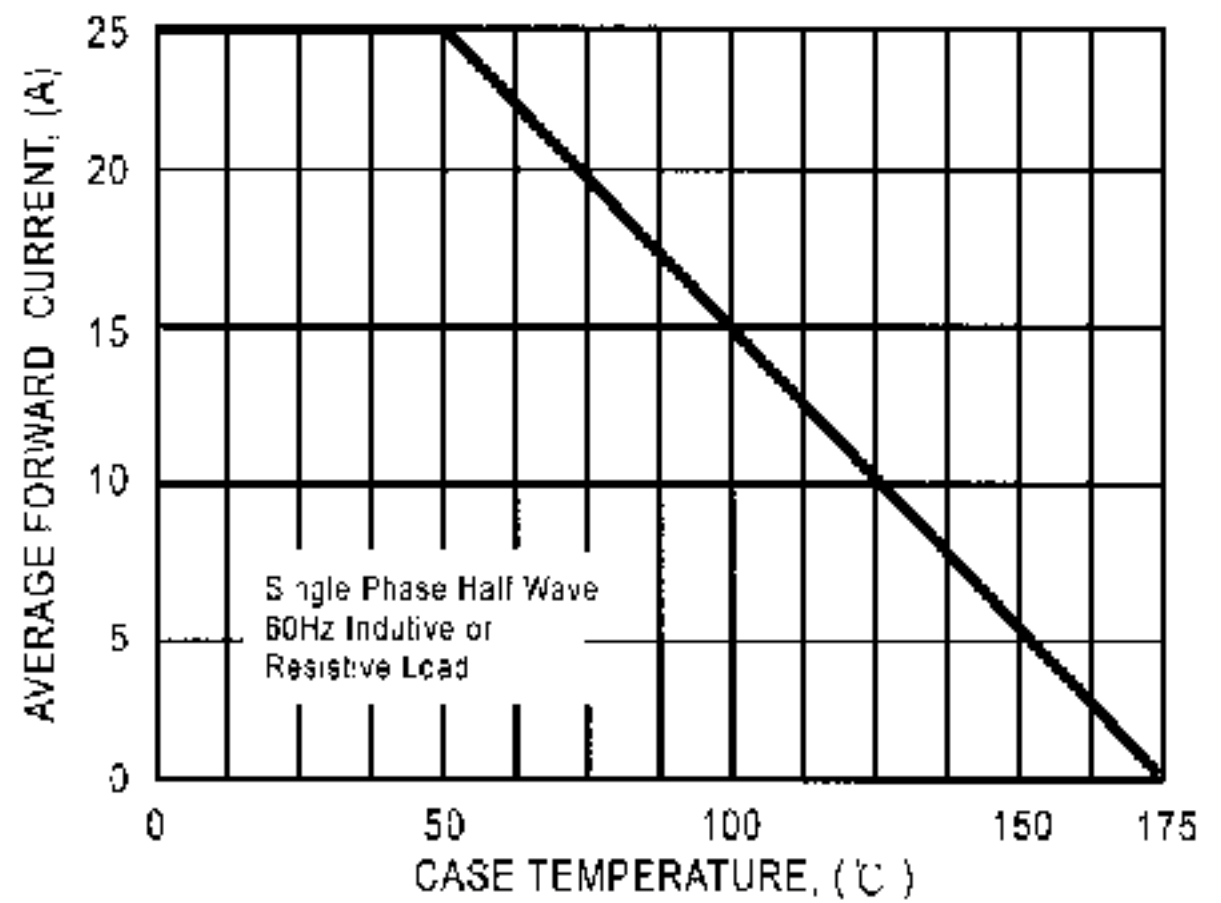


FIG. 3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

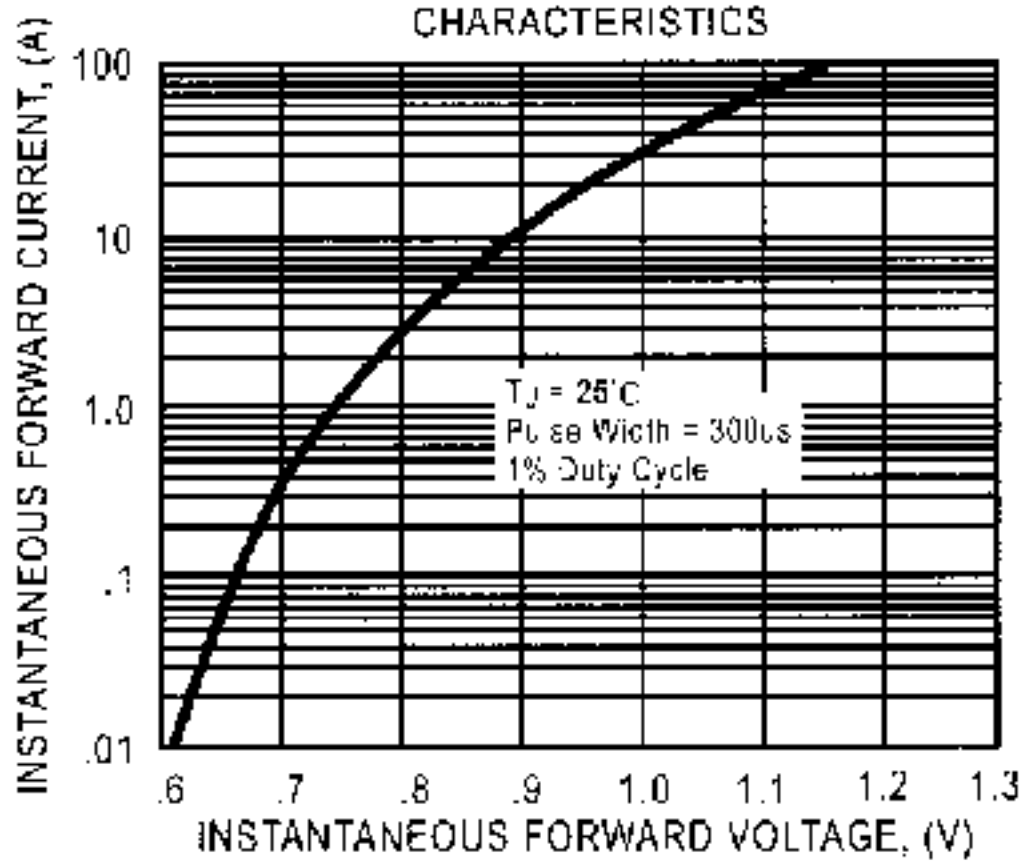


FIG. 4 - TYPICAL REVERSE CHARACTERISTICS

