



**SEMICONDUCTOR
TECHNICAL DATA**

**BR1505W
THRU
BR1510W**

FORWARD INTERNATIONAL ELECTRONICS LTD.

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

FEATURES

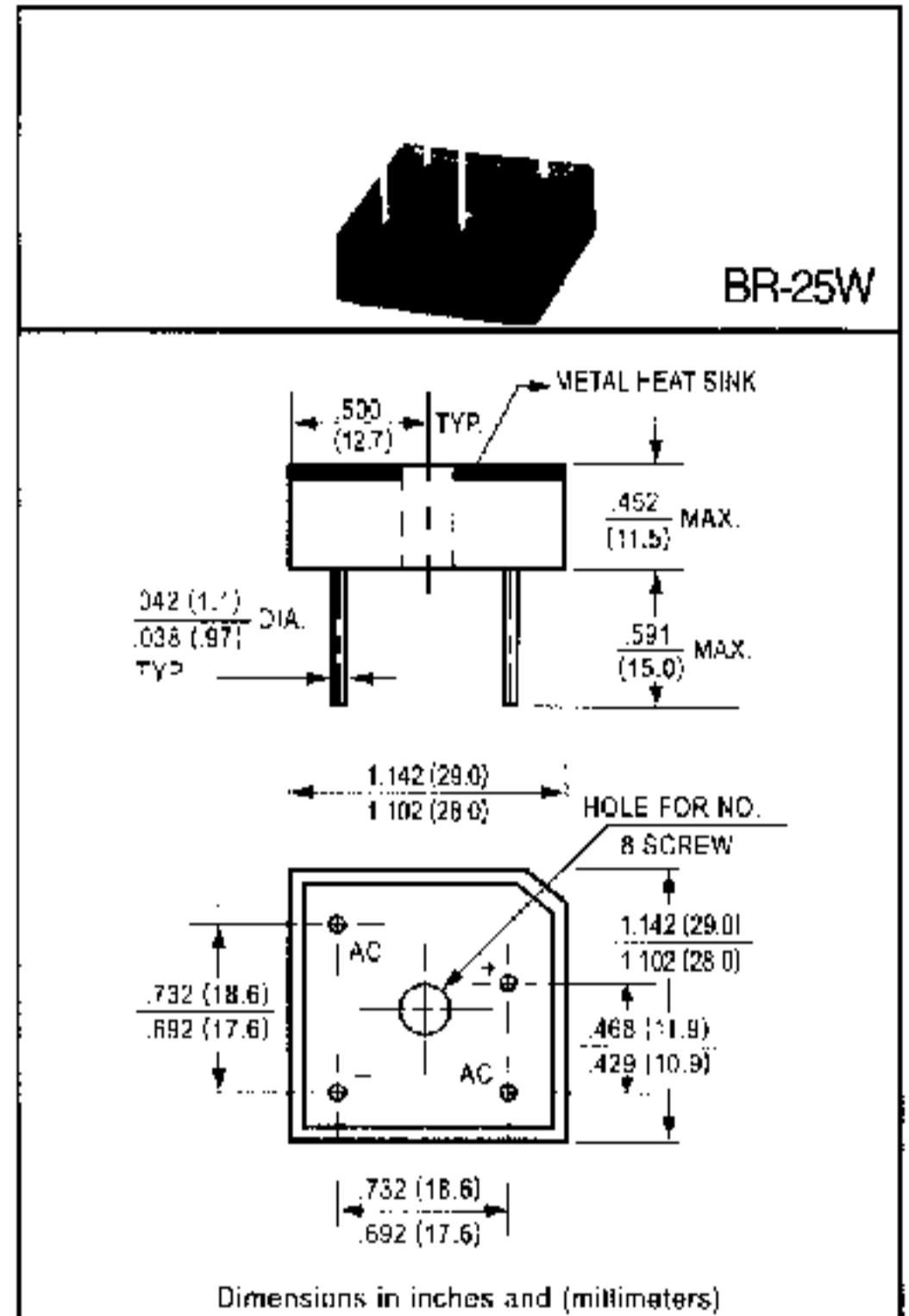
- * Plastic case with heatsink for Maximum Heat
- * Surge overload ratings-300 Amperes
- * Low forward voltage drop

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%.



	SYMBOL	BR1505W	BR151W	BR152W	BR154W	BR156W	BR158W	BR1510W	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	IO	15							Amps	
Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC Method)	IFSM	300							Amps	
Maximum Forward Voltage Drop per element at 7.5A DC	VF	1.1							Volts	
Maximum DC Reverse Current at Rated	IR								10	uAmps
DC Blocking Voltage per element										
I ² t Rating for Fusing (t < 8.3ms)	I ² t	374							A ² Sec	
Typical Junction Capacitance (Note1)	CJ	300							pF	
Typical Thermal Resistance (Note 2)	RθJC	2.5							°C/W	
Operating and Storage Temperature Range	T _L , 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

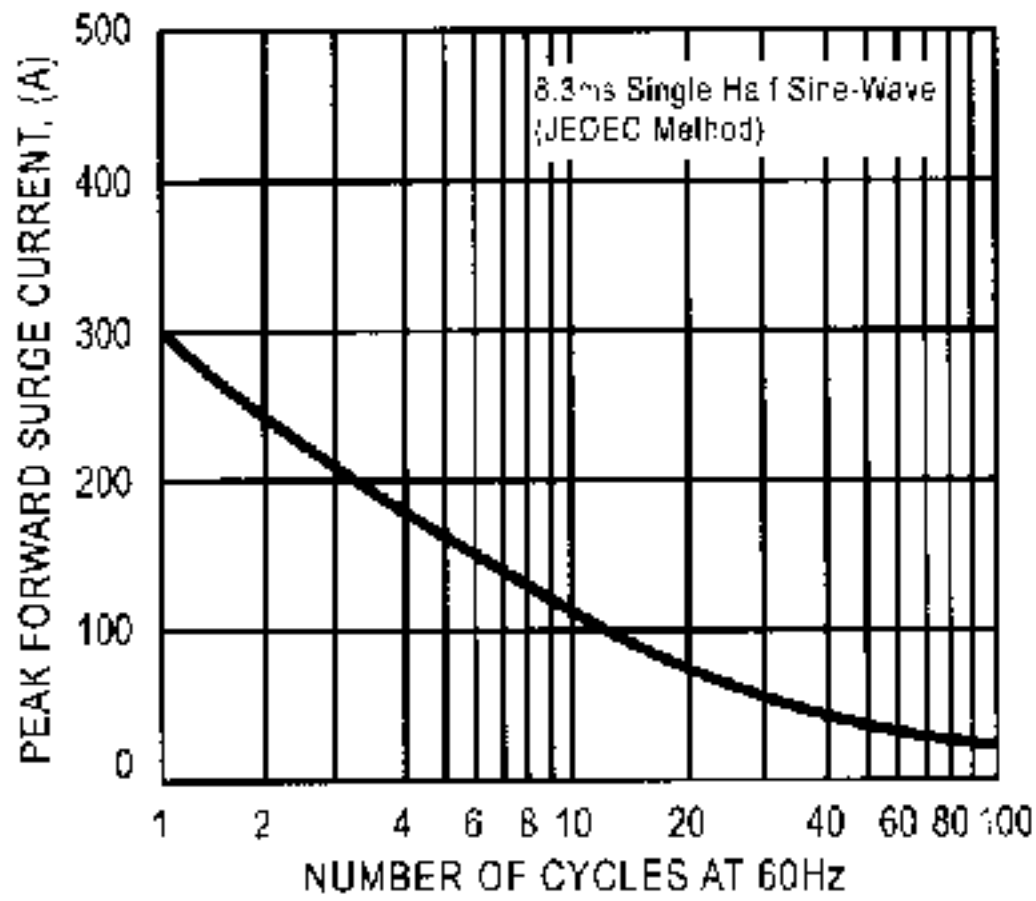


FIG. 2 - TYPICAL FORWARD CURRENT DERATING CURVE

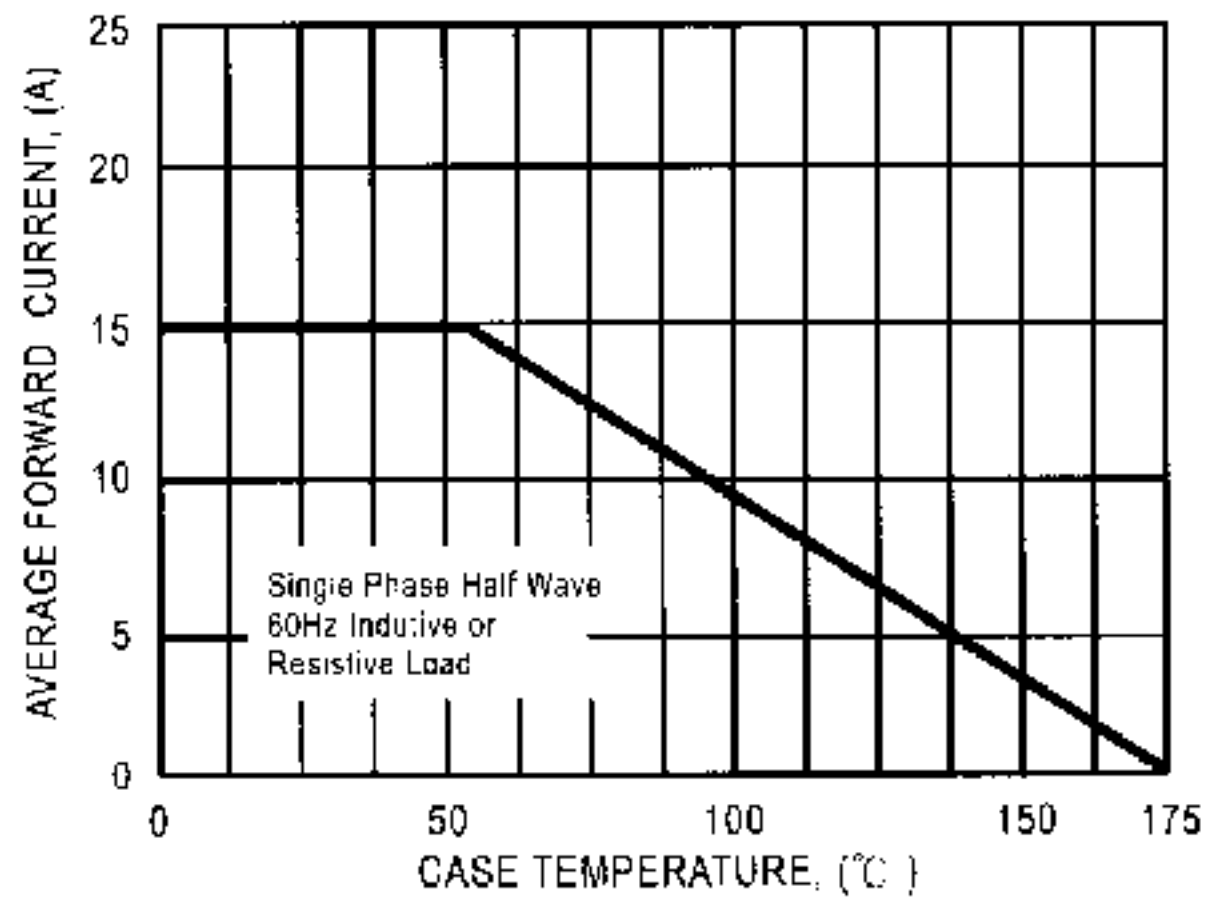


FIG. 3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

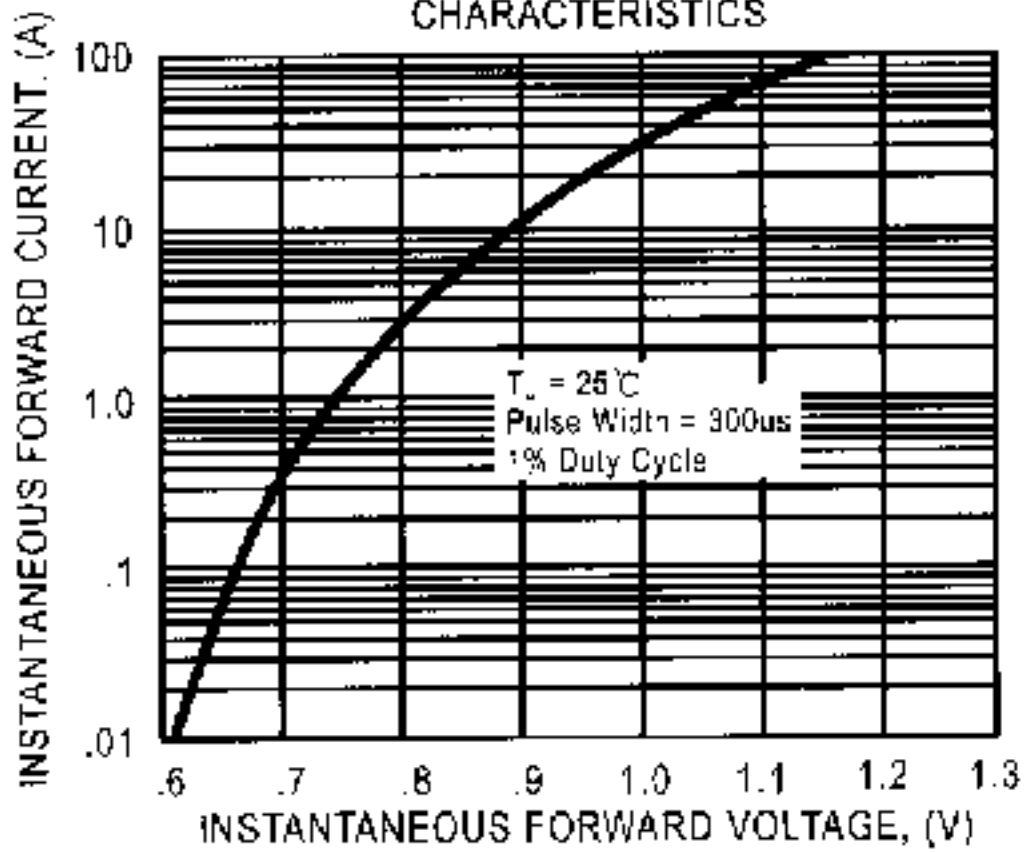


FIG. 4 - TYPICAL REVERSE CHARACTERISTICS

