



**SEMICONDUCTOR
TECHNICAL DATA**

**BR3505
THRU
BR3510**

FORWARD INTERNATIONAL ELECTRONICS LTD.

TECHNICAL SPECIFICATIONS OF SINGLE-PHASE SILICON BRIDGE RECTIFIER

VOLTAGE RANGE - 50 to 1000 Volts

CURRENT - 35 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
- * Terminals: Plated .25"(6.35mm) Faston lugs, Solderable per MIL-STD-202E, Method 208 guaranteed
- * Polarity: As marked
- * Mounting position: Any
- * Weight: 30 grams

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

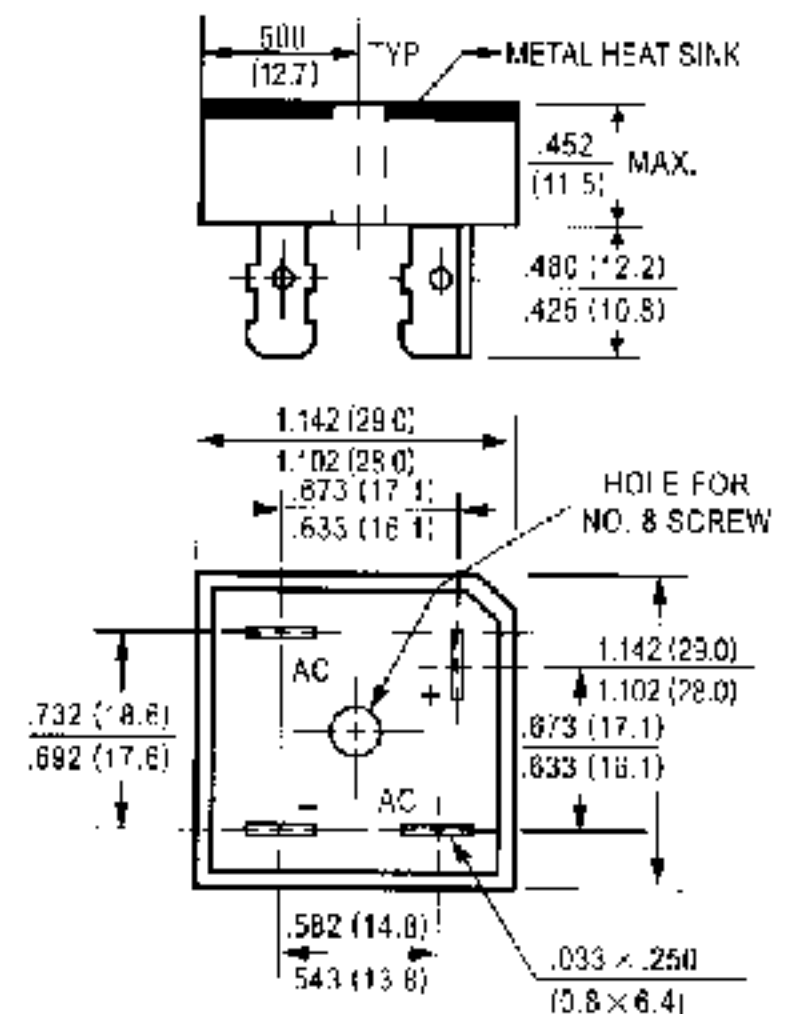
Ratings at 25 °C ambient temperature unless otherwise specified.

Single phase, half wave, 60 Hz resistive or inductive load.

For capacitive load, derate current by 20%



BR-25



Dimensions in inches and (millimeters)

	SYMBOL	BR3505	BR351	BR352	BR354	BR356	BR358	BR3510	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 $T_c = 55^\circ\text{C}$	I_o	35							Amps
Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	400							Amps
Maximum Forward Voltage Drop per element at 17.5A DC	V_F	1.1							Volts
Maximum DC Reverse Current at Rated	I_{rr}	10							uAmps
DC Blocking Voltage per element:		500							
IR Rating for Fusing ($t < 8.3\text{ms}$)	I^2t	664							A^2Sec
Typical Junction Capacitance (Note 1)	C_j	300							μF
Typical Thermal Resistance (Note 2)	$R_{\theta JC}$	2.2							$^\circ\text{C/W}$
Operating and Storage Temperature Range	T, T_{STG}	-55 to +150							$^\circ\text{C}$

NOTES : 1. Measured at 1 MHz and applied reverse voltage of 4.0 volts

2. Thermal Resistance from Junction to Case per eg

RATING AND CHARACTERISTIC CURVES (BR3505 THRU BR3510)

FIG. 1 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

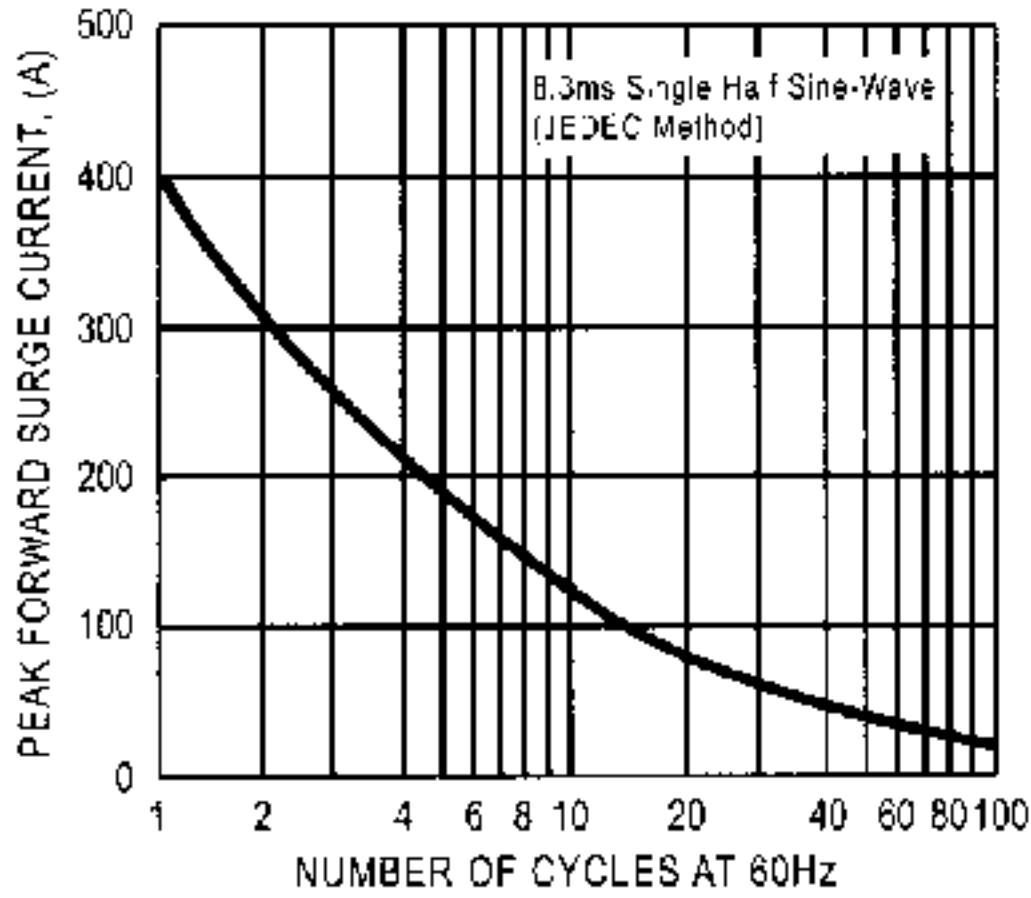


FIG. 2 - TYPICAL FORWARD CURRENT DERATING CURVE

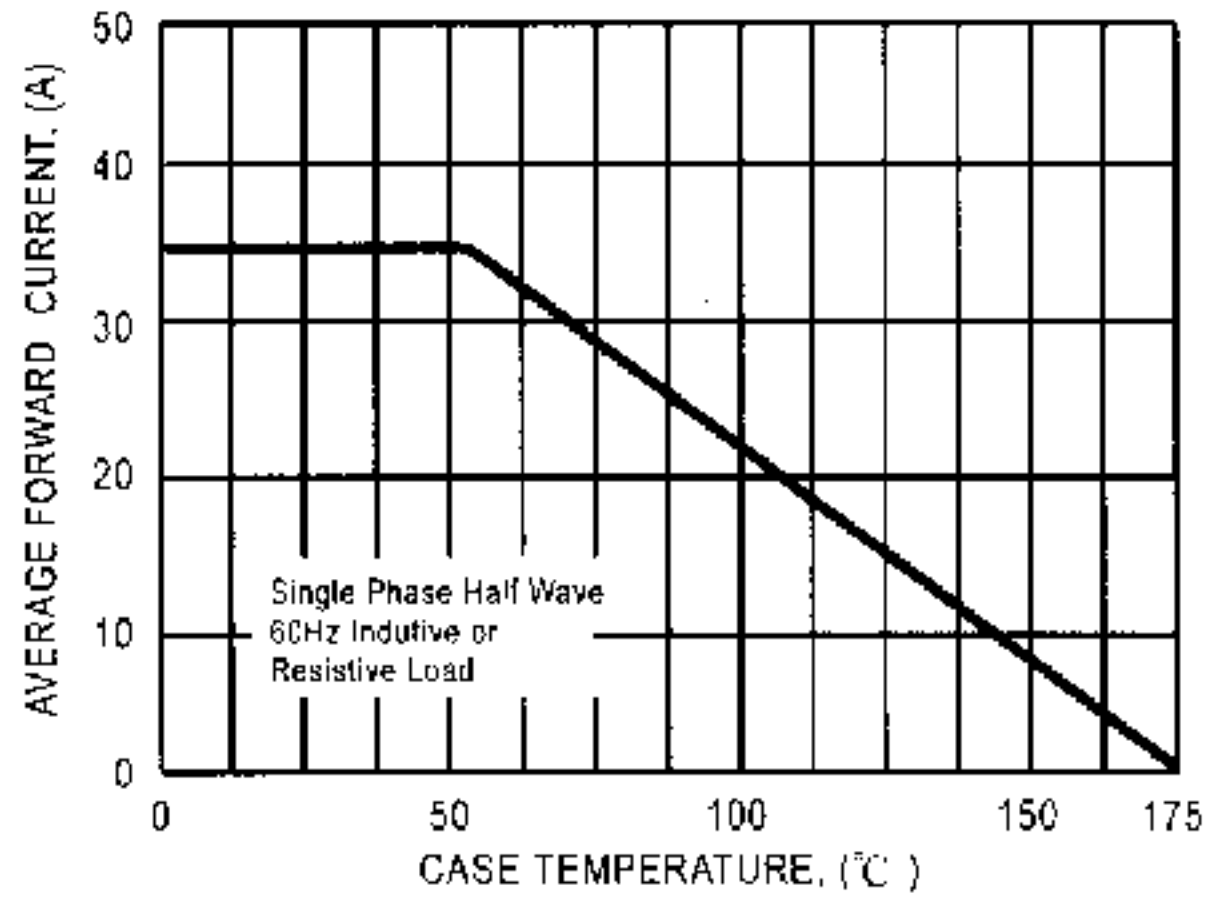


FIG. 3- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

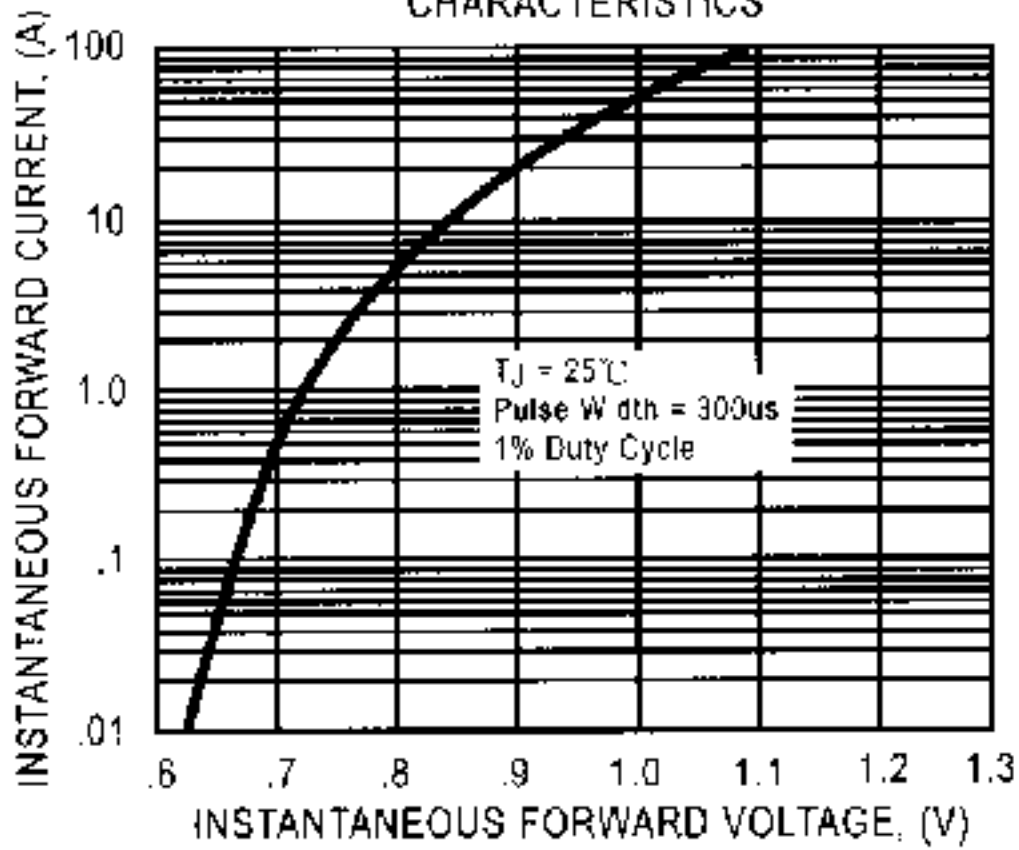


FIG. 4 - TYPICAL REVERSE CHARACTERISTICS

