



# America Semiconductor

## Silicon Bridge Rectifier

### BR805 thru BR84

$V_{RRM} = 50\text{ V} - 1000\text{ V}$

$I_F = 8\text{ A}$

#### BR-8 Package



#### Features

- Types up to 1000 V  $V_{RRM}$
- Ideal for printed circuit board
- Low forward voltage drop
- High temperature soldering guaranteed: 250°C/ 10 seconds, 0.375" lead length
- Low leakage current

#### Mechanical Data

Case: Molded plastic body  
 Polarity: Marked on body  
 Mounting position: Any  
 Mounting: Hole for number 6 screw

#### Maximum ratings, at $T_j = 25\text{ °C}$ , unless otherwise specified

Parameter	Symbol	Conditions	BR805	BR81	BR82	BR84	Unit
Repetitive peak reverse voltage	$V_{RRM}$		50	100	200	400	V
RMS reverse voltage	$V_{RMS}$		35	70	140	280	V
DC blocking voltage	$V_{DC}$		50	100	200	400	V
Continuous forward current	$I_F$	$T_C \leq 50\text{ °C}$	8	8	8	8	A
Surge non-repetitive forward current, Half Sine Wave	$I_{F,SM}$	$T_C = 25\text{ °C}$ , $t_p = 8.3\text{ ms}$	150	150	150	150	A
Operating temperature	$T_j$		-65 to 125	-65 to 125	-65 to 125	-65 to 125	°C
Storage temperature	$T_{stg}$		-65 to 150	-65 to 150	-65 to 150	-65 to 150	°C

#### Electrical characteristics, at $T_j = 25\text{ °C}$ , unless otherwise specified

Parameter	Symbol	Conditions	BR805	BR81	BR82	BR84	Unit
Diode forward voltage	$V_F$	$I_F = 4\text{ A}$ , $T_j = 25\text{ °C}$	1.1	1.1	1.1	1.1	V
Reverse current	$I_R$	$V_R = 50\text{ V}$ , $T_j = 25\text{ °C}$	10	10	10	10	$\mu\text{A}$
		$V_R = 50\text{ V}$ , $T_j = 100\text{ °C}$	200	200	200	200	





FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

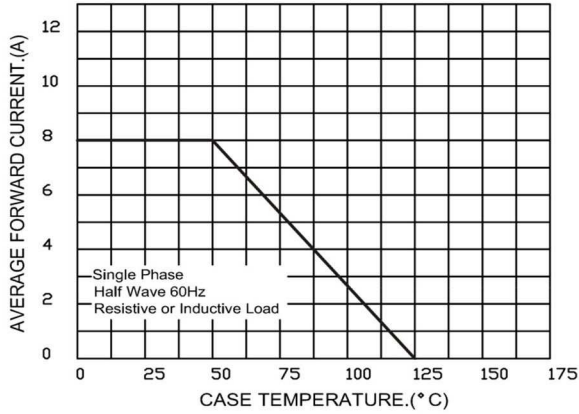


FIG.2-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

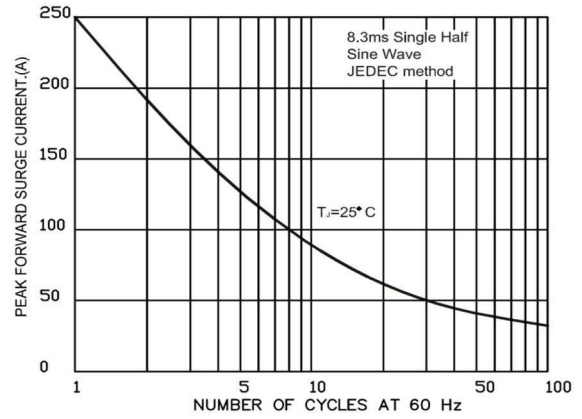


FIG.3-TYPICAL FORWARD CHARACTERISTICS

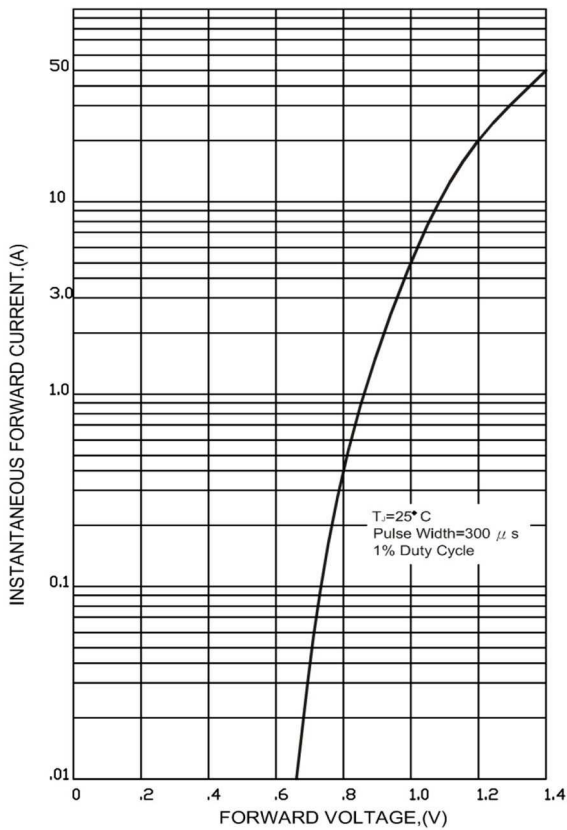


FIG.4-TYPICAL REVERSE CHARACTERISTICS

