



America Semiconductor

Silicon Bridge Rectifier

BR36 thru BR310

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

$I_F = 3\text{ A}$

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

BR-3 Package



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	BR36	BR38	BR310	Unit
Repetitive peak reverse voltage	V_{RRM}		600	800	1000	V
RMS reverse voltage	V_{RMS}		420	560	700	V
DC blocking voltage	V_{DC}		600	800	1000	V
Continuous forward current	I_F	$T_C \leq 50\text{ °C}$	3	3	3	A
Surge non-repetitive forward current, Half Sine Wave	$I_{F,SM}$	$T_C = 25\text{ °C}$, $t_p = 8.3\text{ ms}$	50	50	50	A
Operating temperature	T_j		-65 to 125	-65 to 125	-65 to 125	°C
Storage temperature	T_{stg}		-65 to 150	-65 to 150	-65 to 150	°C

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

Parameter	Symbol	Conditions	BR36	BR38	BR310	Unit
Diode forward voltage	V_F	$I_F = 1.5\text{ A}$, $T_j = 25\text{ °C}$	1	1	1	V
Reverse current	I_R	$V_R = 50\text{ V}$, $T_j = 25\text{ °C}$	10	10	10	μA
		$V_R = 50\text{ V}$, $T_j = 100\text{ °C}$	100	100	100	





FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

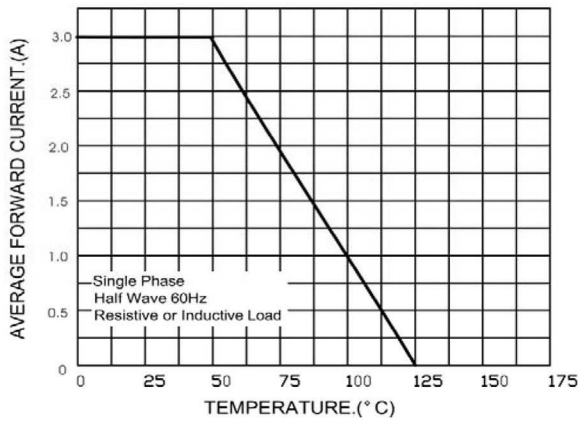


FIG.2-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

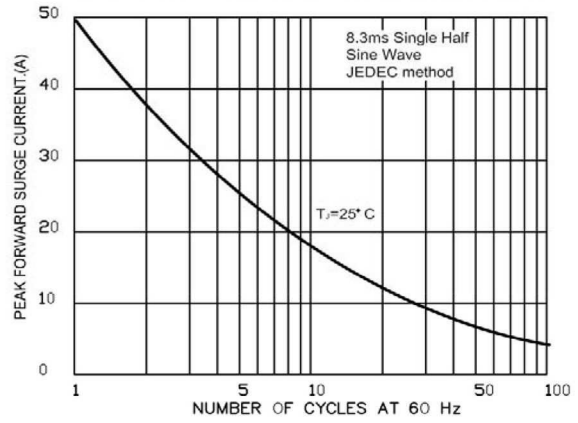


FIG.3-TYPICAL FORWARD CHARACTERISTICS

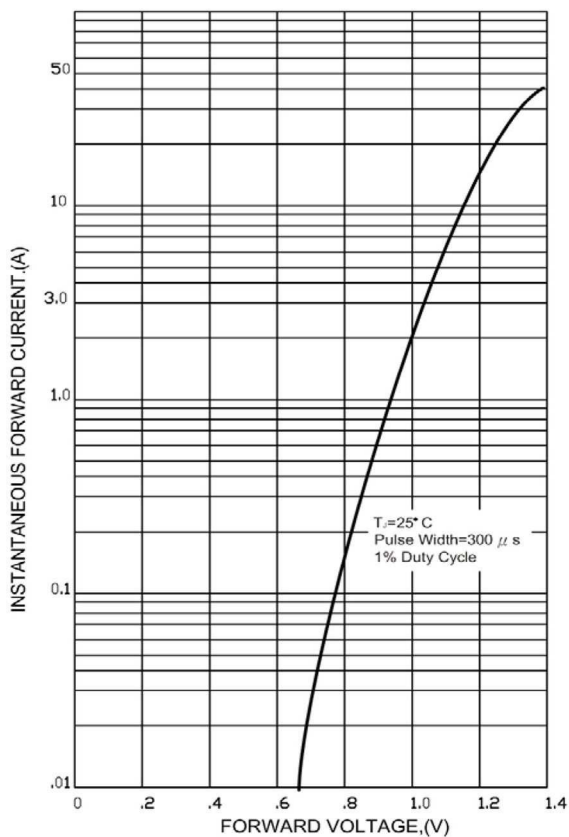


FIG.4-TYPICAL REVERSE CHARACTERISTICS

