

America Semiconductor



"In America Semi We Trust"

MANUFACTURER OF WORLD CLASS HIGH POWER SEMICONDUCTORS

America Semiconductor Silicon Bridge Rectifier

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

BR605 thru BR64

$V_{RRM} = 50\text{ V} - 1000\text{ V}$
 $I_F = 6\text{ A}$

BR-6 Package



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

Parameter	Symbol	Conditions	BR605	BR61	BR62	BR64	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	$T_C \leq 75^\circ\text{C}$	6	6	6	6	A
Surge non-repetitive forward current, Half Sine Wave	$I_{F,SM}$	$T_C = 25^\circ\text{C}$, $t_p = 8.3\text{ ms}$	125	125	125	125	A
Operating temperature	T_j		-65 to 125	-65 to 125	-65 to 125	-65 to 125	$^\circ\text{C}$
Storage temperature	T_{stg}		-65 to 150	-65 to 150	-65 to 150	-65 to 150	$^\circ\text{C}$

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

Parameter	Symbol	Conditions	BR605	BR61	BR62	BR64	Unit
Diode forward voltage	V_F	$I_F = 3\text{ A}$, $T_j = 25^\circ\text{C}$	1	1	1	1	V
Reverse current	I_R	$V_R = 50\text{ V}$, $T_j = 25^\circ\text{C}$ $V_R = 50\text{ V}$, $T_j = 100^\circ\text{C}$	10 200	10 200	10 200	10 200	μA



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BR605 thru BR64

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

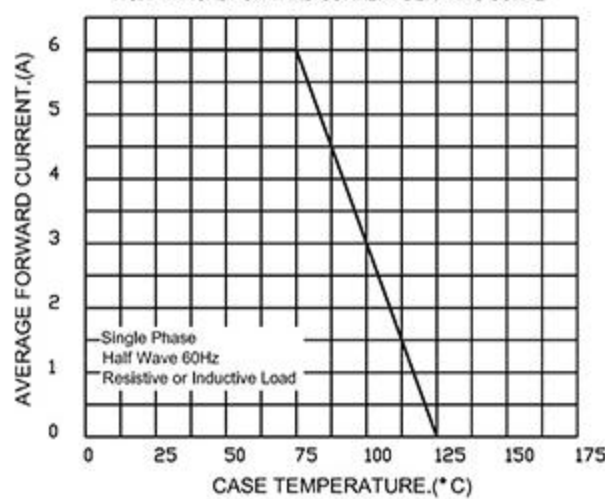


FIG.2-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

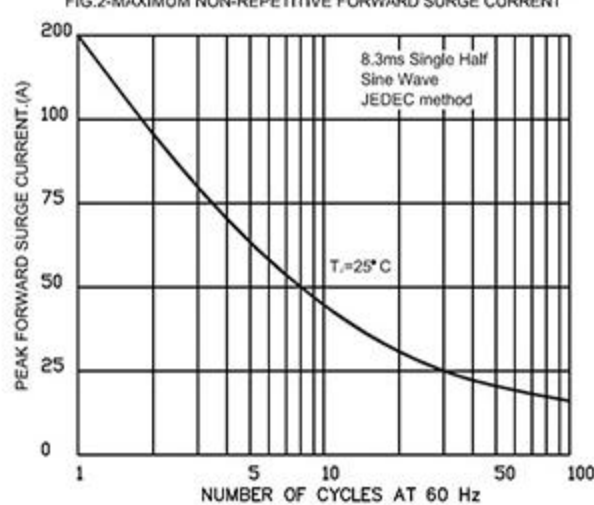


FIG.3-TYPICAL FORWARD CHARACTERISTICS

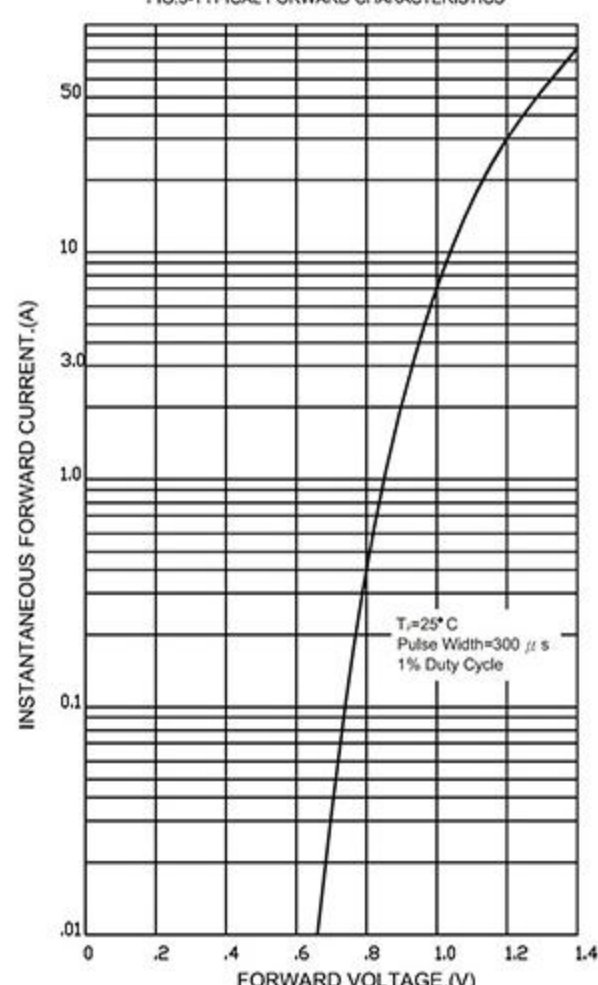
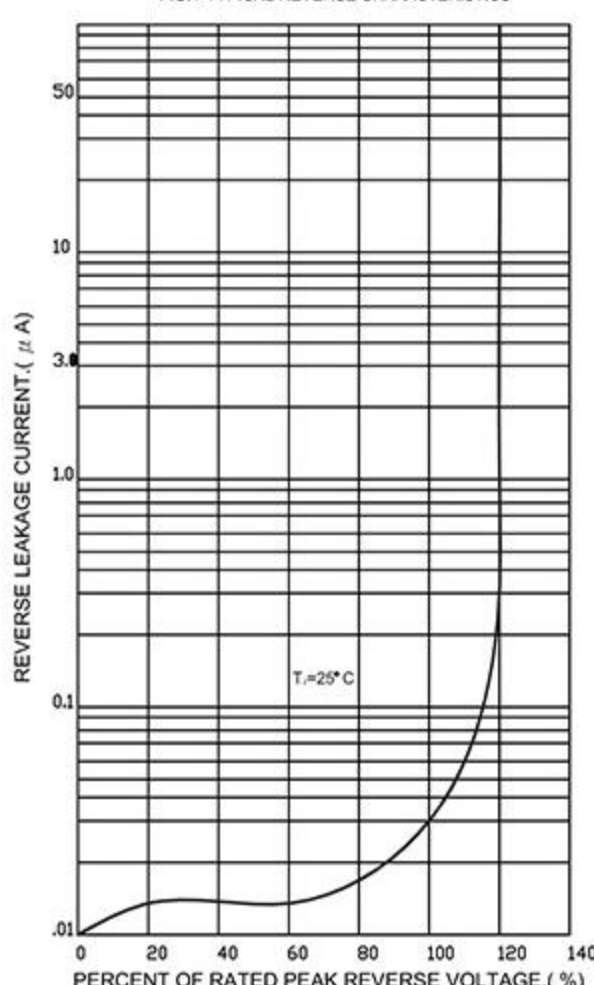


FIG.4-TYPICAL REVERSE CHARACTERISTICS



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