



America Semiconductor

Silicon Bridge Rectifier

**BR1005 thru
BR104**

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

$I_F = 10\text{ A}$

Features

- Types up to 1000 V V_{RRM}
- Low forward voltage drop
- Low leakage current

Mechanical Data

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

BR-10 Package



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

Parameter	Symbol	Conditions	BR1005	BR101	BR102	BR104	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	$T_C \leq 50\text{ °C}$	10	10	10	10	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 150	-65 to 150	-65 to 150	-65 to 150	°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	BR1005	BR101	BR102	BR104	Unit
Diode forward voltage	V_F	$I_F = 5\text{ A}$, $T_j = 25\text{ °C}$	1.1	1.1	1.1	1.1	V
Reverse current	I_R	$V_R = 50\text{ V}$, $T_j = 25\text{ °C}$ $V_R = 50\text{ V}$, $T_j = 100\text{ °C}$	10 1000	10 1000	10 1000	10 1000	μA

Thermal characteristics

Thermal resistance, junction - case	R_{thJC}		9.40	9.40	9.40	9.40	°C/W
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FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

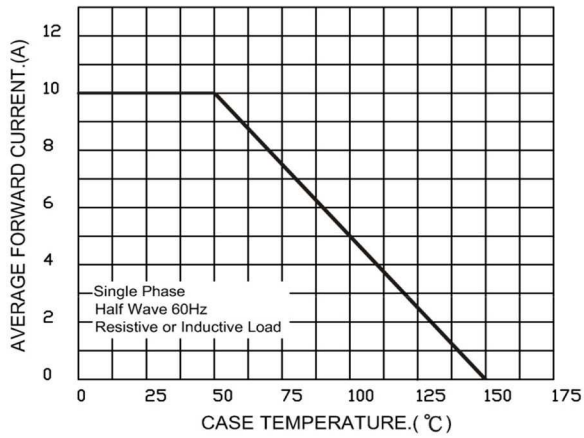


FIG.2-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

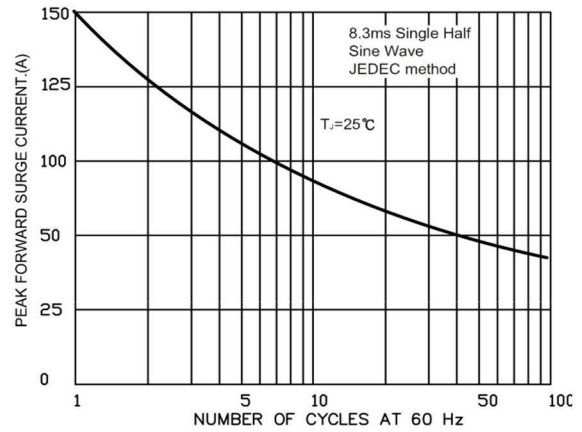


FIG.3-TYPICAL FORWARD CHARACTERISTICS

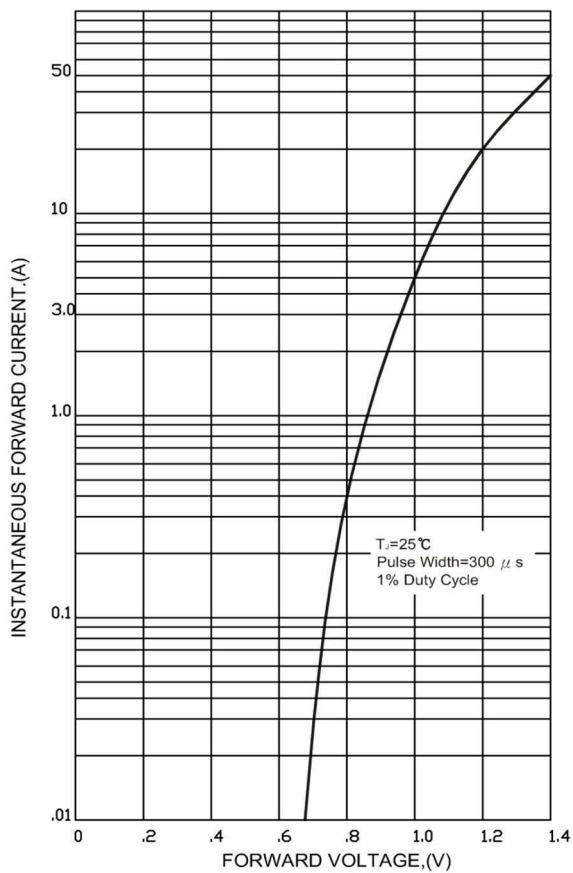


FIG.4-TYPICAL REVERSE CHARACTERISTICS

