

## Silicon Bridge Rectifier

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

$I_F = 10\text{ A}$

### Features

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

BR-10 Package

### Mechanical Data

Case: Molded plastic body

Polarity: Marked on body

Mounting position: Any

Mounting: Hole for number 6 screw



### Maximum ratings, at $T_j = 25\text{ }^\circ\text{C}$ , 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	$I_F$	$T_C \leq 50\text{ }^\circ\text{C}$	10	10	10	10	A
Surge non-repetitive forward current, Half Sine Wave	$I_{F,SM}$	$T_C = 25\text{ }^\circ\text{C}$ , $t_p = 8.3\text{ ms}$	150	150	150	150	A
Operating temperature	$T_j$		-65 to 150	-65 to 150	-65 to 150	-65 to 150	$^\circ\text{C}$
Storage temperature	$T_{stg}$		-65 to 150	-65 to 150	-65 to 150	-65 to 150	$^\circ\text{C}$

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

Parameter	Symbol	Conditions	BR1005	BR101	BR102	BR104	Unit
Diode forward voltage	$V_F$	$I_F = 5\text{ A}$ , $T_j = 25\text{ }^\circ\text{C}$	1.1	1.1	1.1	1.1	V
Reverse current	$I_R$	$V_R = 50\text{ V}$ , $T_j = 25\text{ }^\circ\text{C}$	10	10	10	10	$\mu\text{A}$
		$V_R = 50\text{ V}$ , $T_j = 100\text{ }^\circ\text{C}$	1000	1000	1000	1000	

### Thermal characteristics

Thermal resistance, junction - case	$R_{thJC}$		9.40	9.40	9.40	9.40	$^\circ\text{C/W}$
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FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

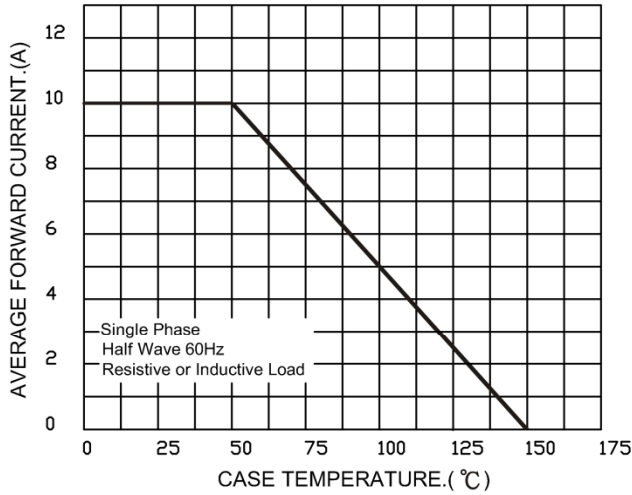


FIG.2-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

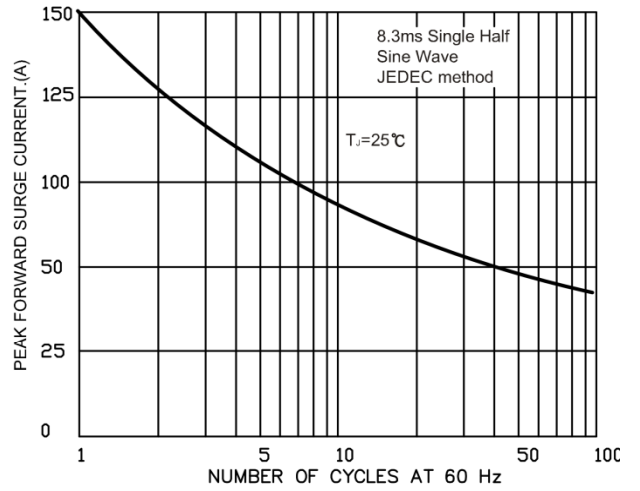


FIG.3-TYPICAL FORWARD CHARACTERISTICS

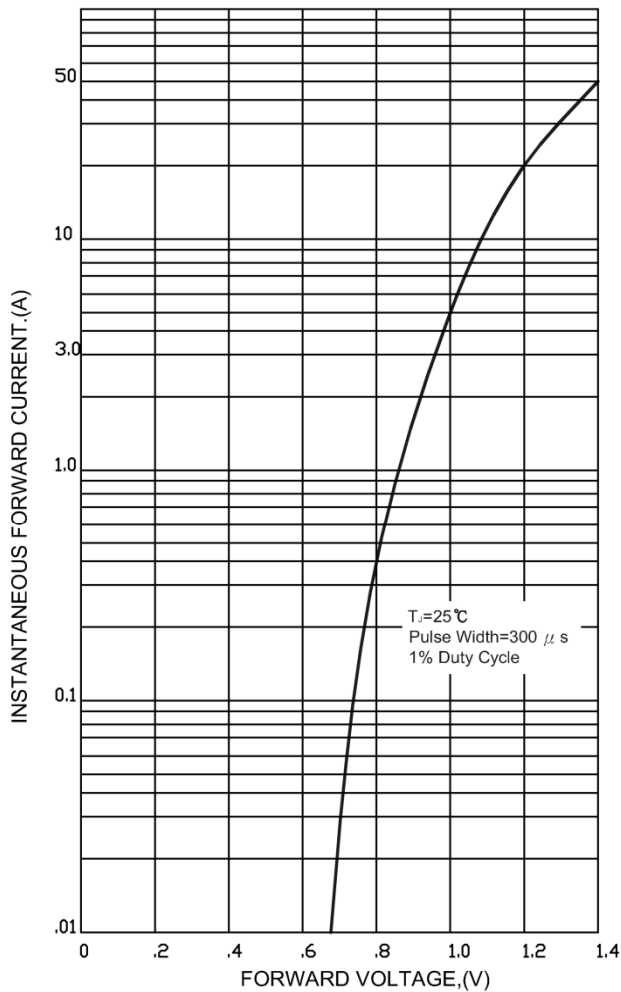


FIG.4-TYPICAL REVERSE CHARACTERISTICS

