

## Single Phase Silicon Bridge Rectifier

$V_{RRM} = 50\text{ V} - 400\text{ V}$

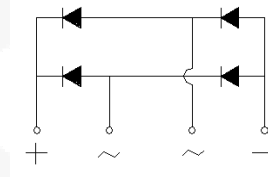
$I_O = 10\text{ A}$

### Features

- Low forward voltage drop
- Low leakage current
- Types from 50 V up to 400 V  $V_{RRM}$
- Not ESD Sensitive

### Mechanical Data

Case: Molded plastic body  
 Polarity: marked on the body  
 Mounting: Hole thru for #6 screw  
 Mounting position: Any



BR-10 Package



### Maximum ratings at $T_c = 25\text{ }^\circ\text{C}$ , 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
Operating temperature	$T_j$		-55 to 150	-55 to 150	-55 to 150	-55 to 150	$^\circ\text{C}$
Storage temperature	$T_{stg}$		-55 to 150	-55 to 150	-55 to 150	-55 to 150	$^\circ\text{C}$

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

Single phase, half sine wave, 60 Hz, resistive or inductive load  
 For capacitive load derate current by 20%

Parameter	Symbol	Conditions	BR1005	BR101	BR102	BR104	Unit
Maximum average forward rectified current	$I_O$	$T_c = 50\text{ }^\circ\text{C}$	10	10	10	10	A
Peak forward surge current	$I_{FSM}$	$t_p = 8.3\text{ ms}$ , half sine	150	150	150	150	A
Maximum instantaneous forward voltage drop per bridge element	$V_F$	$I_F = 5.0\text{ A}$	1.1	1.1	1.1	1.1	V
Maximum DC reverse current at rated DC blocking voltage	$I_R$	$T_a = 25\text{ }^\circ\text{C}$ $T_a = 100\text{ }^\circ\text{C}$	10 1000	10 1000	10 1000	10 1000	$\mu\text{A}$
Typical junction capacitance	$C_j$		55	55	55		pF
Typical thermal resistance	$R_{\theta JA}$		9.4	9.4	9.4		$^\circ\text{C/W}$

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

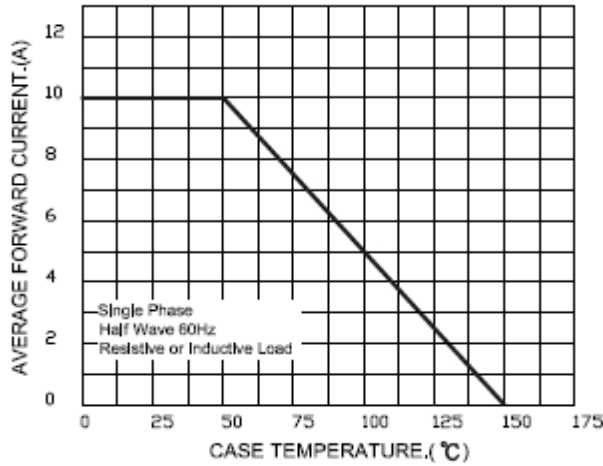


FIG.2-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

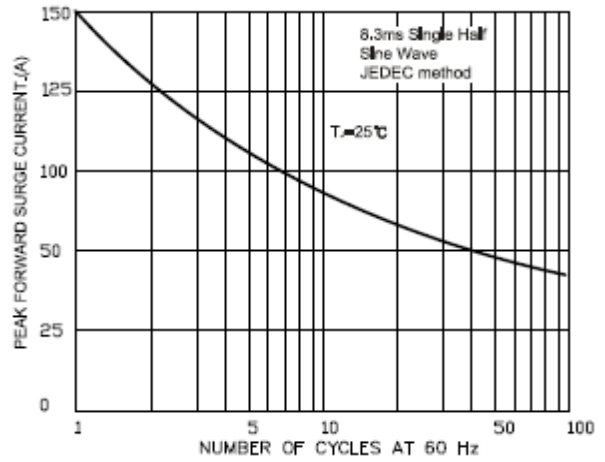


FIG.3-TYPICAL FORWARD CHARACTERISTICS

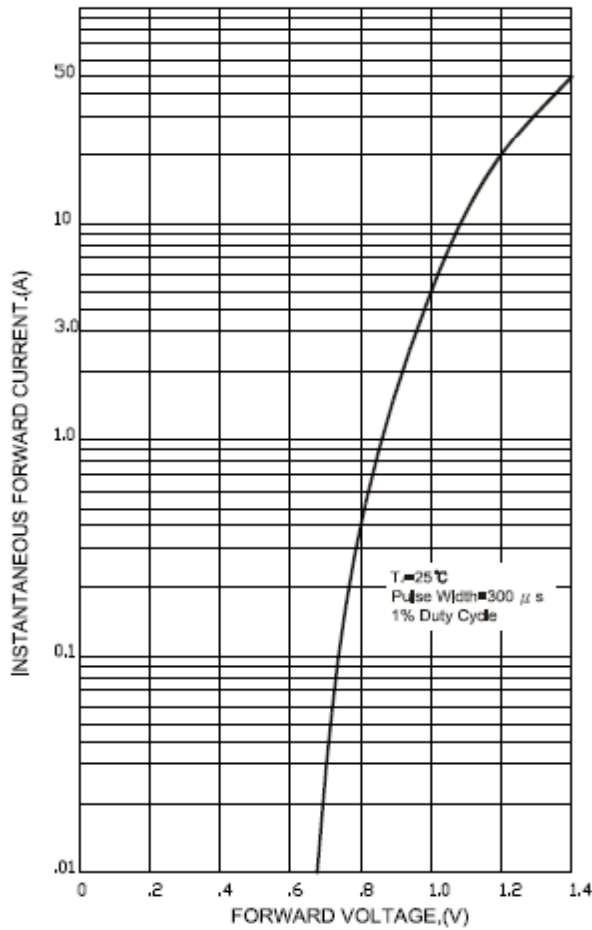
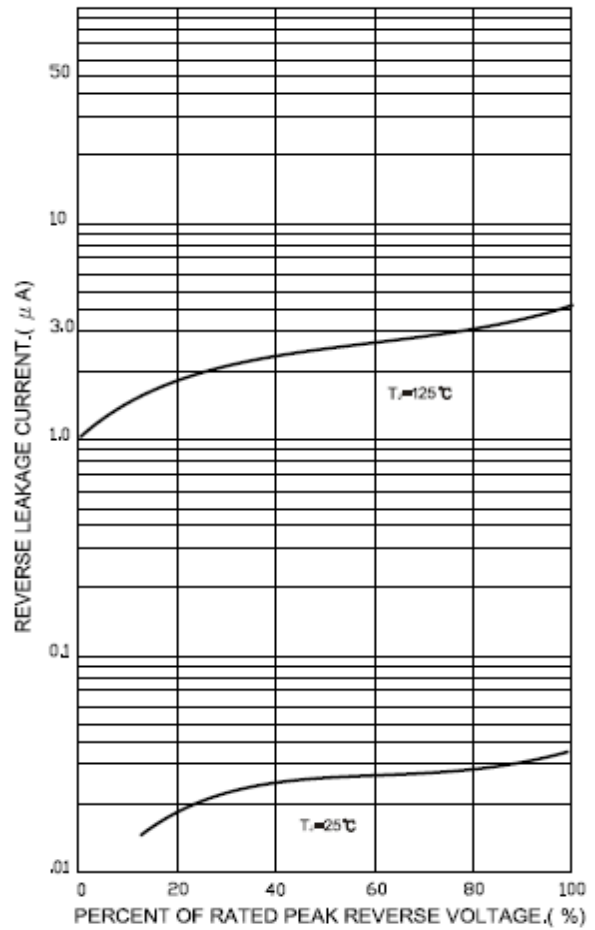
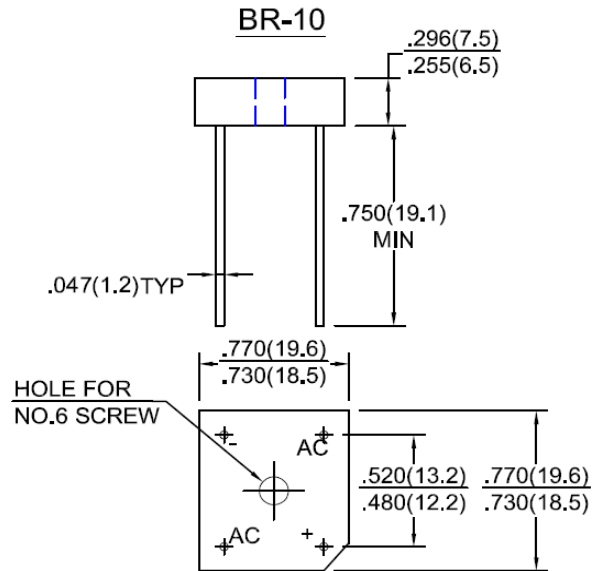


FIG.4-TYPICAL REVERSE CHARACTERISTICS



**Package dimensions and terminal configuration**

Product is marked with part number and terminal configuration.



Dimensions in inches and (millimeters)

