

## Single Phase Glass Passivated Silicon Bridge Rectifier

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

$I_O = 10\text{ A}$

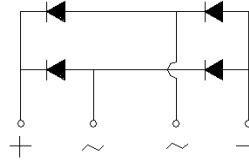
### Features

- Low forward voltage
- High surge overload rating
- Ideal for printed circuit boards
- High temperature soldering: 260°C/ 10 s
- Types from 50 V up to 400 V  $V_{RRM}$
- Not ESD Sensitive

### Applications

- Switching power supply
- Home appliances, office devices
- Industrial auto-equipments

BR-10 Package



### Maximum ratings at $T_A = 25\text{ °C}$ , 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
Operating temperature	$T_j$		-40 to 150	-40 to 150	-40 to 150	-40 to 150	°C
Storage temperature	$T_{stg}$		-40 to 150	-40 to 150	-40 to 150	-40 to 150	°C

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

Single phase, half sine wave, 50 Hz, resistive load

For capacitive load derate current by 20%

Parameter	Symbol	Conditions	BR1005	BR101	BR102	BR104	Unit
Maximum forward rectified current	$I_O$	$T_A = 40\text{ °C}$	10	10	10	10	A
Peak forward surge current	$I_{FSM}$	$t_p = 8.3\text{ ms}$	200	200	200	200	A
Maximum forward voltage drop	$V_F$	$I_F = 5.0\text{ A}$	1.05	1.05	1.05	1.05	V
Maximum reverse current at rated DC blocking voltage	$I_R$	$T_A = 25\text{ °C}$	10	10	10	10	$\mu\text{A}$
		$T_A = 125\text{ °C}$	500	500	500	500	
Rating for fusing	$I^2t$	$1\text{ ms} < t_p < 10\text{ ms},$ $T_j = 25\text{ °C}$	166	166	166	166	$\text{A}^2\text{s}$
Thermal resistance	$R_{\theta JA}$		5	5	5	5	°C/W

Fig.1 Current Derating Curve

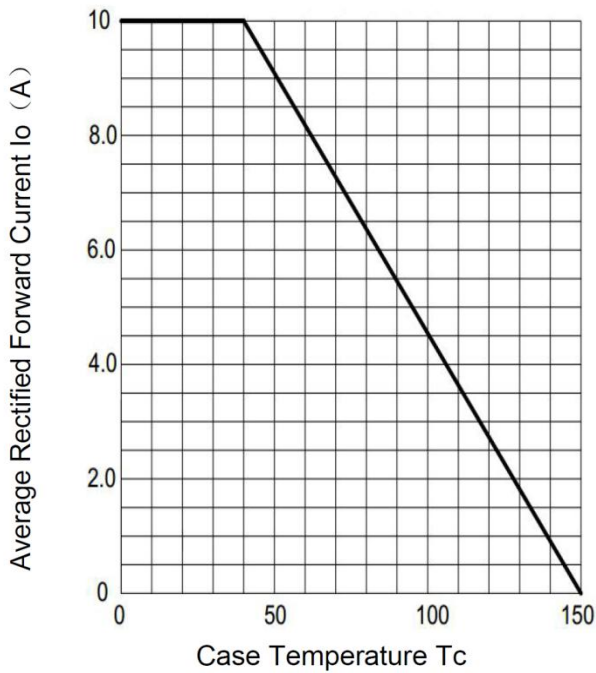


Fig.2 Typical Reverse Characteristics

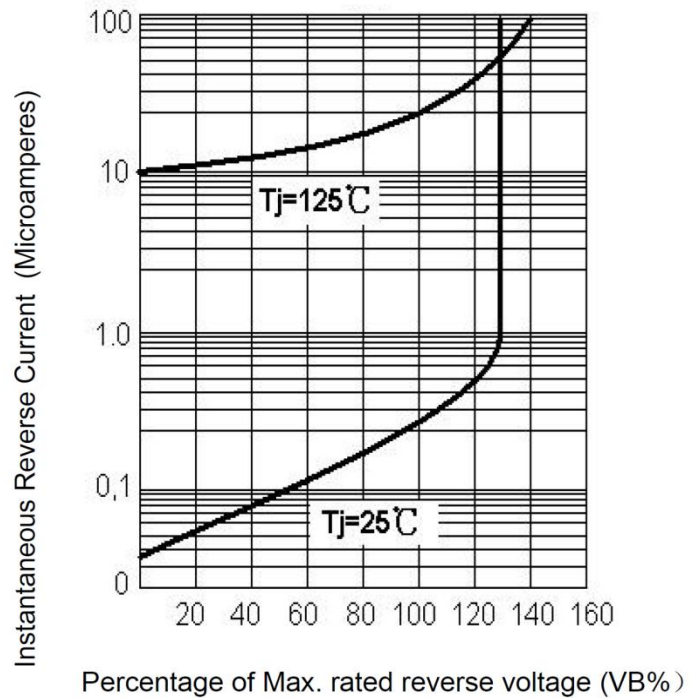


Fig.3 Max. Surge Current

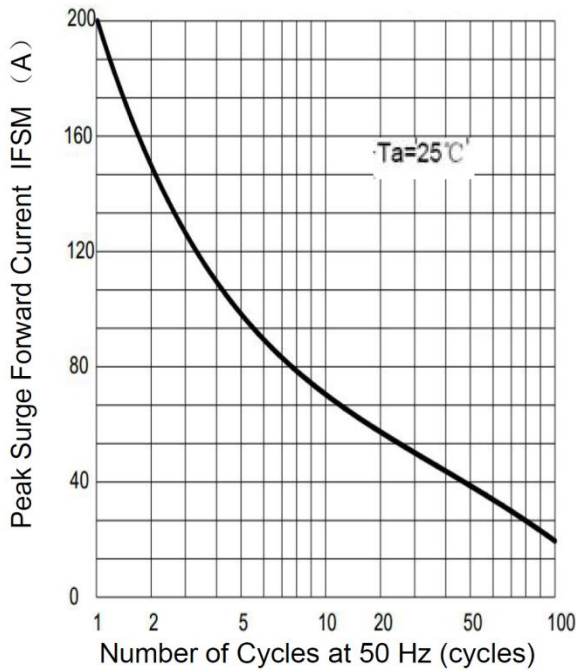
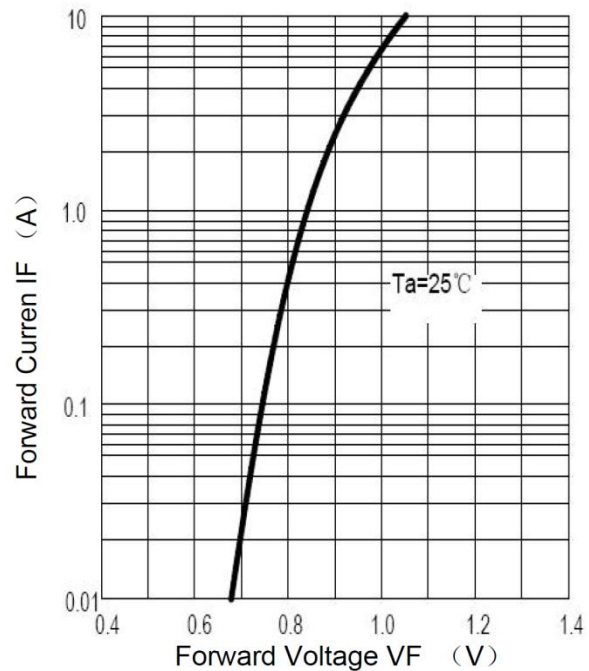


Fig.4 Rated Forward Features



### Package dimensions and terminal configuration

Product is marked with part number and terminal configuration.

BR-10

