Single Phase Silicon Bridge Rectifier

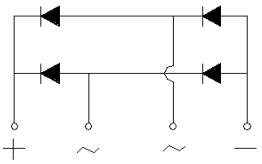
V_{RRM} = 50 V - 400 V

I_O = 50 A

Features

- High efficiency
- Silicon junction
- Metal case
- Types from 50 V to 400 V V_{RRM}
- Not ESD Sensitive

KBPC-T/W Package



Mechanical Data

Case: Mounted in the bridge encapsulation
Mounting: Hole for #10 screw
Polarity: Marked on case

Maximum ratings at Tc = 25 °C, unless otherwise specified (KBPCXXXXT uses KBPC-T package while KBPCXXXXW uses KBPC-W package)

Parameter	Symbol	Conditions	KBPC50005T/W	KBPC5001T/W	KBPC5002T/W	KBPC5004T/W	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	°C
Storage temperature	T_{stg}		-55 to 150	-55 to 150	-55 to 150	-55 to 150	°C

Electrical characteristics at Tc = 25 °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	KBPC50005T/W	KBPC5001T/W	KBPC5002T/W	KBPC5004T/W	Unit
Maximum average forward rectified current	I_O	T_c = 40 °C	50	50	50	50	A
Peak forward surge current	I_{FSM}	8.3 ms half sine-wave	400	400	400	400	A
Maximum instantaneous forward voltage per leg	V_F	I_F = 25.0 A	1.1	1.1	1.1	1.1	V
Maximum DC reverse current at rated DC blocking voltage per leg	I_R	T_c = 25 °C T_c = 100 °C	5 500	5 500	5 500	5 500	µA
Thermal characteristics							
Typical thermal resistance per leg [1]	$R_{\Theta JA}$		2.5	2.5	2.5	2.5	°C/W

[1] - Thermal resistance from Junction to Ambient on P.C. board mounting

FIG.1 - TYPICAL FORWARD CORRENT DERATING CURVE

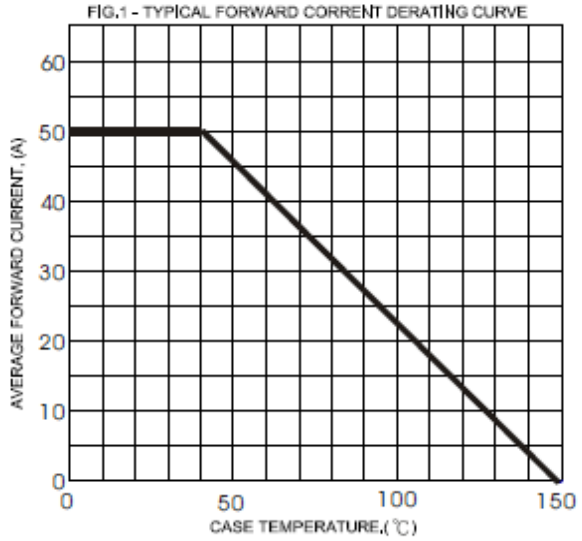


FIG.2 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

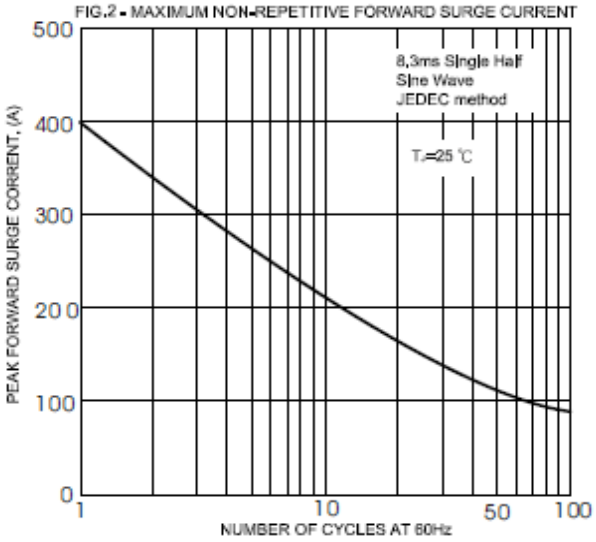


FIG.3 - TYPICAL FORWARD CHARACTERISTICS

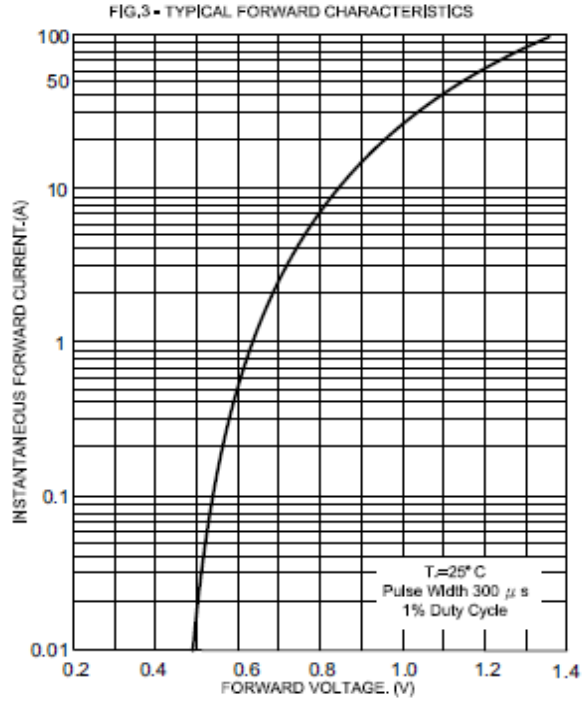
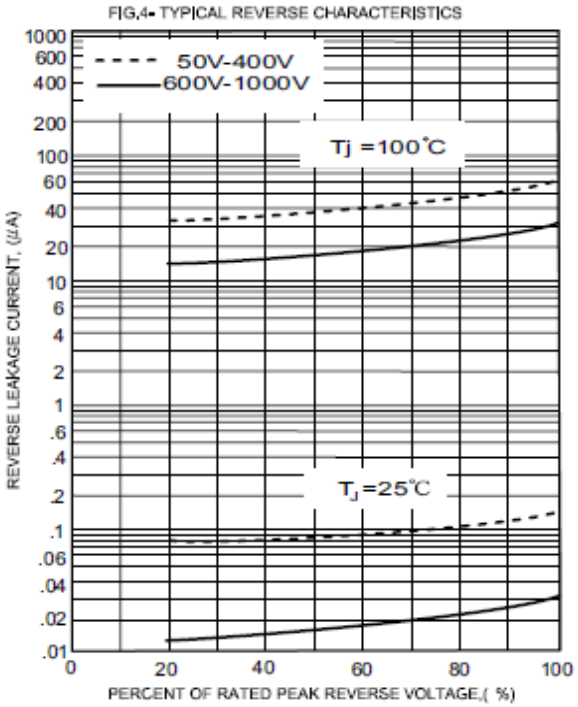
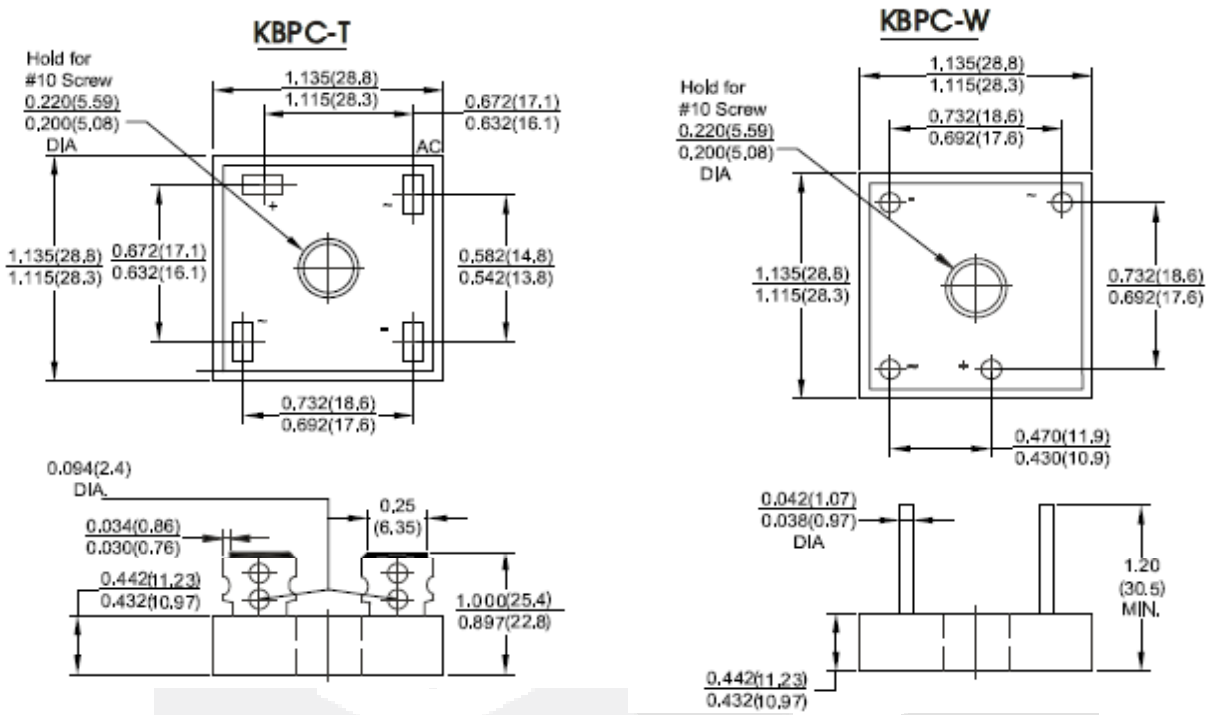


FIG.4- TYPICAL REVERSE CHARACTERISTICS



Package dimensions and terminal configuration

Product is marked with part number and terminal configuration.



Dimensions in inches and (millimeters)