

SINGLE PHASE SILICON BRIDGE RECTIFIER

FEATURES:

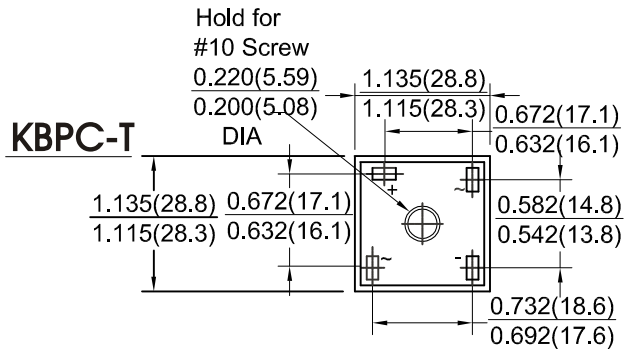
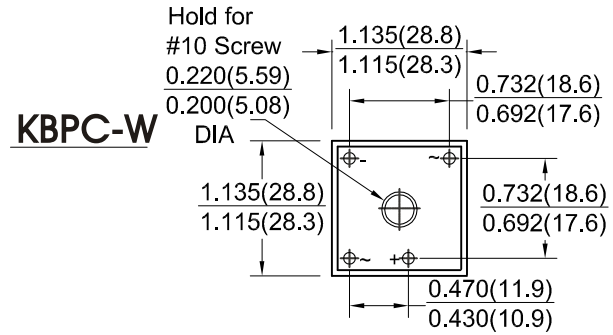
- High efficiency
- Silicon junction
- Metal case
- Rating to 1000 V PRV

MECHANICAL DATA

Case : Mounted In the bridge encapsulation

Polarity : As marked on case

Mounting : Hole for #10 screw



Dimensions in inches and (millimeters)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating at 25° C ambient temperature unless otherwise specified.

Single phase half wave, 60 Hz resistive or inductive load.

For capacitive load, derate current by 20%.

Characteristic	Symbol	KBPC							Units
		25005 T/W	2501 T/W	2502 T/W	2504 T/W	2506 T/W	2508 T/W	2510 T/W	
	Marking	KBPC 25005	KBPC 2501	KBPC 2502	KBPC 2504	KBPC 2506	KBPC 2508	KBPC 2510	
Maximum recurrent peak reverse voltage	V_{RRM}	50	100	200	400	600	800	1000	Volts
Maximum RMS voltage	V_{RMS}	35	70	140	280	420	560	700	Volts
Maximum DC blocking voltage	V_{DC}	50	100	200	400	600	800	1000	Volts
Maximum average forward rectified current at $T_c = 55^\circ C$	I_O	25							Amps
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method) Per leg	I_{FSM}	350							Amps
Maximum instantaneous forward voltage Per leg $I_F = 12.5A$	V_F	1.1							Volts
Maximum DC reverse current at rated DC blocking voltage Per leg $T_c = 25^\circ C$ $T_c = 100^\circ C$	I_R	10 500							μA
Typical thermal resistance (NOTE1)	R_{th-JC}	1.9							$^\circ C/W$
Typical junction capacitance (NOTE2)	C_J	300							Pf
Operating junction and Storage temperature range	T_J, T_{stg}	-55 to +150							$^\circ C$

NOTES:

(1) Device mounted on 300mm x 300mm x 1.6mm cu Plate Heatsink

(2) Measured at 1 MHz and applied reverse voltage of 4.0V D.C.

FIG.1 - TYPICAL FORWARD CURRENT DERATING CURVE

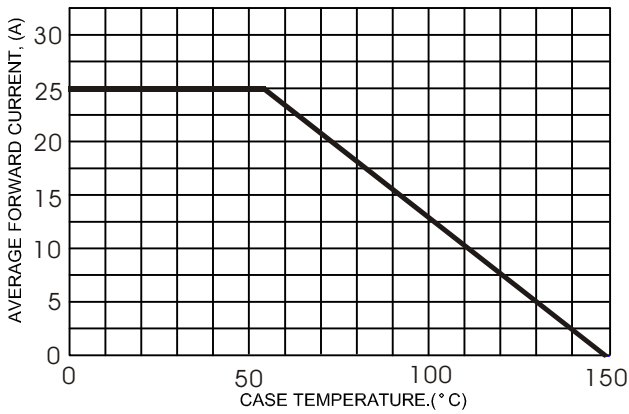


FIG.2 - TYPICAL FORWARD CHARACTERISTICS

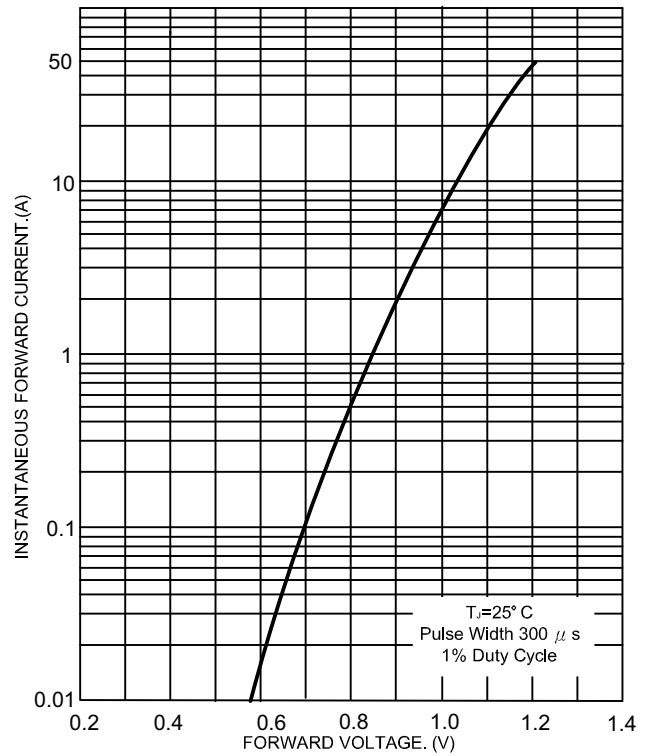


FIG.3 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

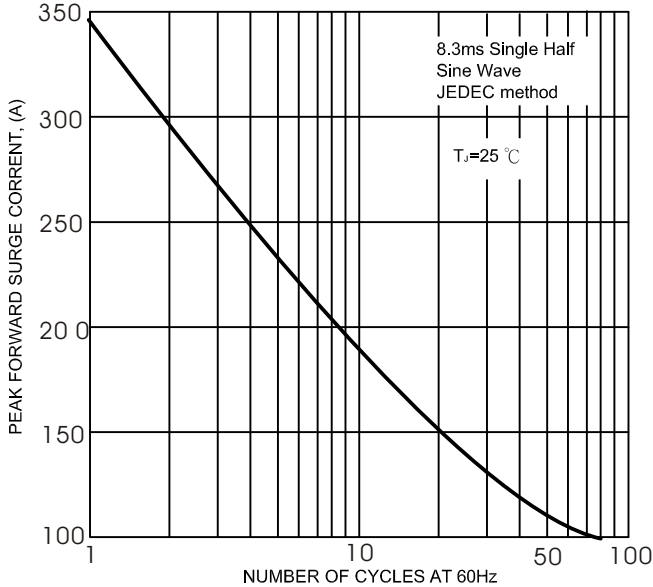


FIG.5- TYPICAL REVERSE CHARACTERISTICS

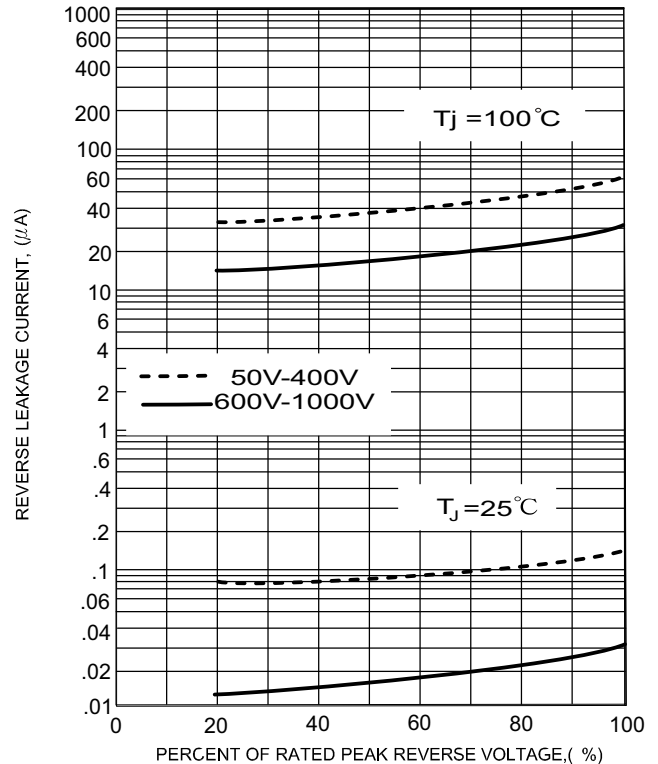


FIG.4- TYPICAL JUNCTION CAPACITANCE

