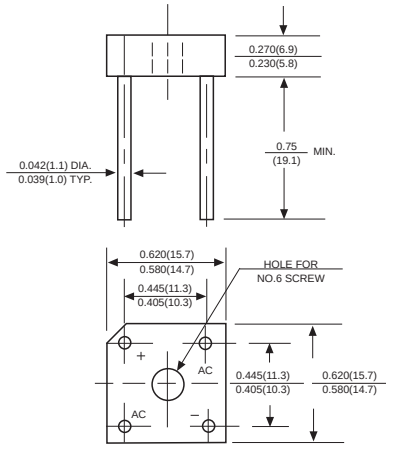
KBPC6005 THRU KBPC610

SILICON BRIDGE RECTIFIERS

Reverse Voltage - 50 to 1000 Volts Forward Current - 6.0 Amperes

BR-6



Dimensions in inches and (millimeters)

FEATURES

- The plastic package carries Underwriters Laboratory Flammability Classification 94V-0
- Ideal for printed circuit boards
- Low reverse leakage
- High forward surge current capability
- High temperature soldering guaranteed: 260℃/10 seconds,5 lbs. (2.3kg) tension

MECHANICAL DATA

Case: Molded plastic body
Terminals: Plated leads solderable per MIL-STD-750, Method 2026
Polarity: Polarity symbols marked on case
Mounting:Thru hole for #6 serew,5in.-lbs. torque max.
Weight:0.13 ounce, 3.66 grams

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25℃ ambient temperature unless otherwise specified.
Single phase half-wave 60Hz,resistive or inductive load, for capacitive load current derate by 20%.

MDD Catalog Number	*SYMBOLS*	KBPC 6005	KBPC 601	KBPC 602	KBPC 604	KBPC 606	KBPC 608	KBPC 610	UNITS
Maximum repetitive 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 T_A=50℃(Note 1) output rectified current at T_A=25℃(Note 2)	$I_{(AV)}$	6.0 3.0							Amps
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	125							Amps
Rating for Fusing(t<8.3ms)	I^2t	64							A^2s
Maximum instantaneous forward voltage drop per birdge element at 3.0A	V_F	1.0							Volts
Maximum DC reverse current T_A=25℃	I_R	10							μA
at rated DC blocking voltage T_A=100℃		1.0							mA
Typical Junction Capacitance (Note 1)	C_J	60							pF
Typical Thermal Resistance (Note 2)	$R_{\theta JA}$	8.0							°C/W
Operating junction temperature range	T_J	-55 to +125							°C
storage temperature range	T_{STG}	-55 to +150							°C

NOTES:
1.Unit mounted on 6.0 ” x 5.5 ” x0.11 ” thick(15x14x0.3cm)Al.plate.
2.Unit mounted on P.C. board with 0.47 ” x 0.47 ” (12x12mm) copper pads,0.375 ” (9.5mm) lead length.

www.microdiode.com

RATINGS AND CHARACTERISTIC CURVES KBPC6005 THRU KBPC610

FIG. 1- FORWARD CURRENT DERATING CURVE

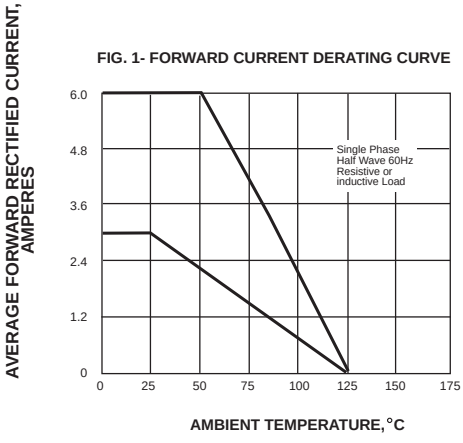


FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

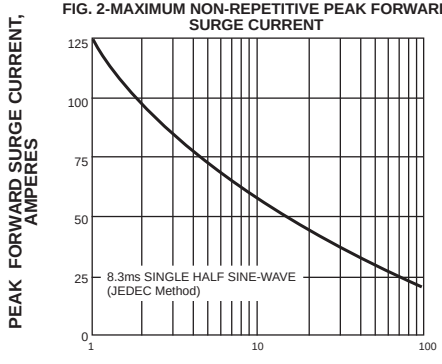


FIG. 3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

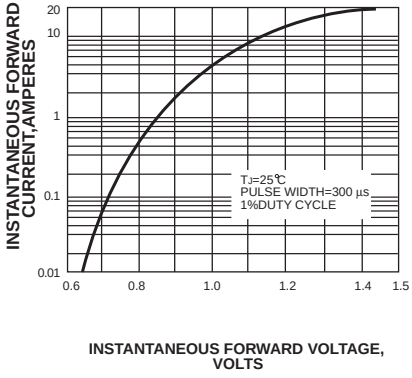


FIG. 4-TYPICAL REVERSE CHARACTERISTICS

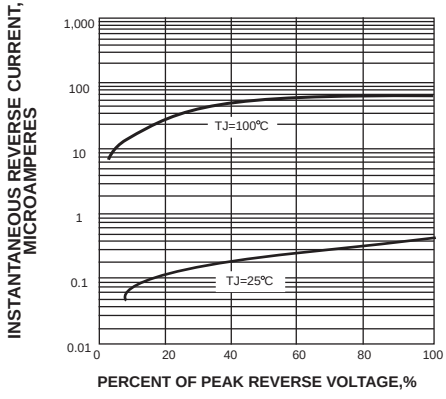


FIG. 5-TYPICAL JUNCTION CAPACITANCE

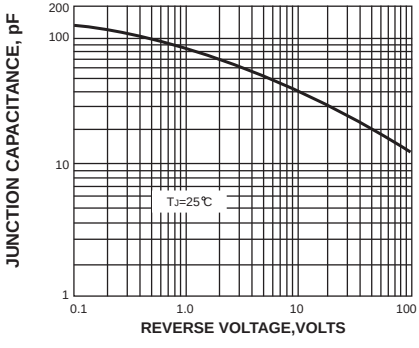
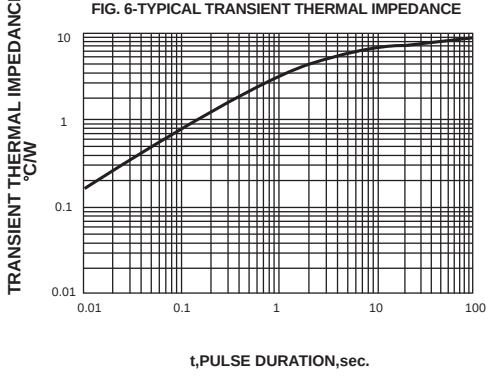


FIG. 6-TYPICAL TRANSIENT THERMAL IMPEDANCE



The cruve graph is for reference only, can't be the basis for judgment(曲线图仅供参考)!

www.microdiode.com