

**Features**

- High efficiency
- Types up to 1000 V  $V_{RRM}$
- Silicon junction
- Metal case

**Mechanical Data**

Case: Mounted in the bridge encapsulation

Mounting position: Hole for #10 screw

Polarity: Marked on case

**KBPC-T/W Package**


Maximum ratings, at  $T_J = 25\text{ }^\circ\text{C}$ , unless otherwise specified (KBPCXXXXT uses KBPC-T package while KBPCXXXXW uses KBPC-W package)

Parameter	Symbol	Conditions	KBPC15005T/W	KBPC1501T/W	KBPC1502T/W	KBPC1504T/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
Continuous forward current	$I_F$	$T_C \leq 55\text{ }^\circ\text{C}$	15	15	15	15	A
Surge non-repetitive forward current, Half Sine Wave	$I_{FSM}$	$T_C = 25\text{ }^\circ\text{C}$ , $t_p = 8.3\text{ ms}$	300	300	300	300	A
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  $T_J = 25\text{ }^\circ\text{C}$ , unless otherwise specified

Parameter	Symbol	Conditions	KBPC15005T/W	KBPC1501T/W	KBPC1502T/W	KBPC1504T/W	Unit
Diode forward voltage	$V_F$	$I_F = 7.5\text{ A}$ , $T_J = 25\text{ }^\circ\text{C}$	1.1	1.1	1.1	1.1	V
Reverse current	$I_R$	$V_R = 50\text{ V}$ , $T_J = 25\text{ }^\circ\text{C}$	5	5	5	5	$\mu\text{A}$
		$V_R = 50\text{ V}$ , $T_J = 100\text{ }^\circ\text{C}$	500	500	500	500	

**Thermal characteristics**

Thermal resistance, junction - case	$R_{\theta JC}$						$^\circ\text{C/W}$
			2.3	2.3	2.3	2.3	



FIG. 1 - TYPICAL FORWARD CURRENT DERATING CURVE

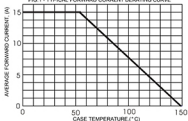


FIG. 2 - TYPICAL FORWARD CHARACTERISTICS

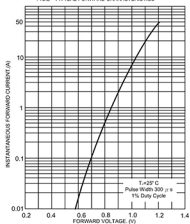


FIG. 3 - MAXIMUM NON REPETITIVE FORWARD SURGE CURRENT

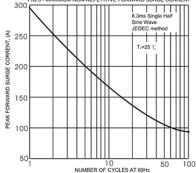


FIG. 4 - TYPICAL JUNCTION CAPACITANCE

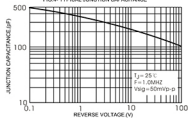


FIG. 5 - TYPICAL REVERSE CHARACTERISTICS

