



**America Semiconductor**

**Silicon Bridge Rectifier**

**KBPC35005TW thru  
KBPC3504TW**

**$V_{RRM} = 50\text{ V} - 1000\text{ V}$**

**$I_F = 35\text{ A}$**

**Features**

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

**KBPC-T/W Package**



**Mechanical Data**

Case: Mounted in the bridge encapsulation

Mounting position: Hole for #10 screw

Polarity: Marked on case

**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	KBPC35005T/W	KBPC3501T/W	KBPC3502T/W	KBPC3504T/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	$I_F$	$T_C \leq 55\text{ }^\circ\text{C}$	35	35	35	35	A
Surge non-repetitive forward current, Half Sine Wave	$I_{F,SM}$	$T_C = 25\text{ }^\circ\text{C}$ , $t_p = 8.3\text{ ms}$	400	400	400	400	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	KBPC35005T/W	KBPC3501T/W	KBPC3502T/W	KBPC3504T/W	Unit
Diode forward voltage	$V_F$	$I_F = 17.5\text{ A}$ , $T_j = 25\text{ }^\circ\text{C}$	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**

Parameter	Symbol	Conditions	KBPC35005T/W	KBPC3501T/W	KBPC3502T/W	KBPC3504T/W	Unit
Thermal resistance, junction - case	$R_{thJC}$		1.4	1.4	1.4	1.4	$^\circ\text{C/W}$





FIG.1 - TYPICAL FORWARD CORRENT DERATING CURVE

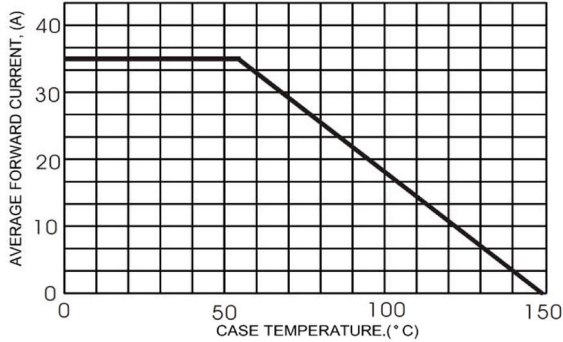


FIG.2 - TYPICAL FORWARD CHARACTERISTICS

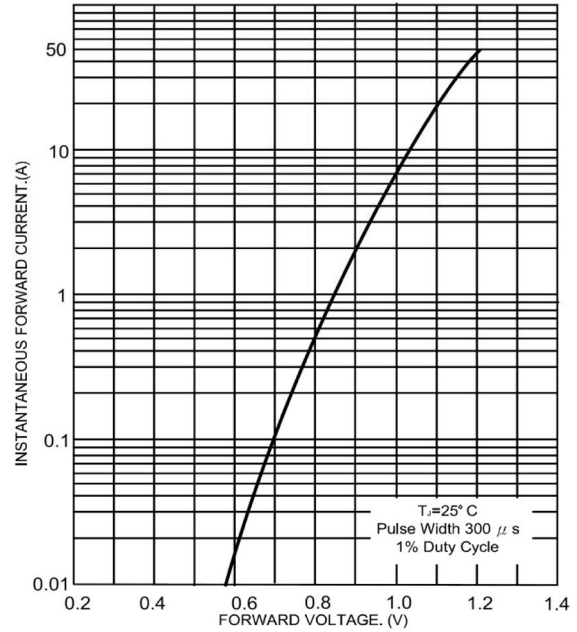


FIG.3 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

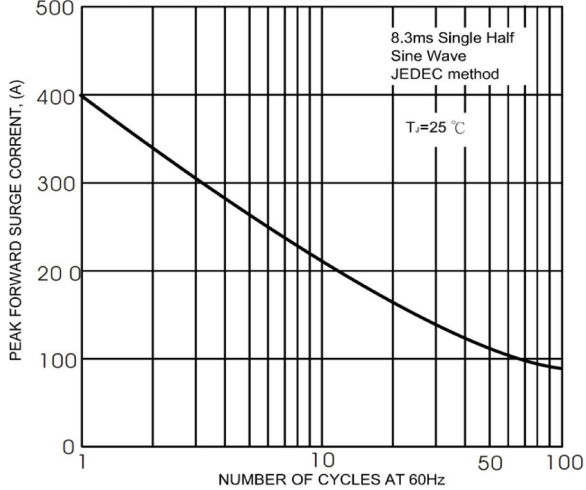


FIG.4 - TYPICAL JUNCTION CAPACITANCE

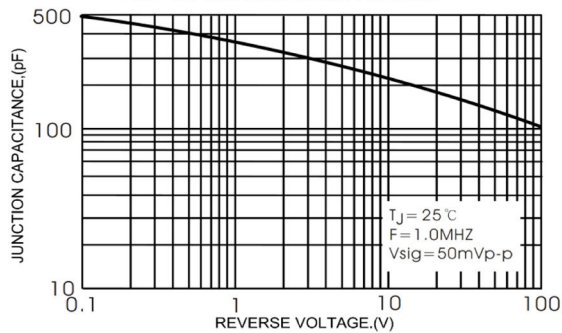


FIG.5- TYPICAL REVERSE CHARACTERISTICS

