



America Semiconductor

Silicon Bridge Rectifier

**KBPC50005TW thru
KBPC5004TW**

V_{RRM} = 50 V - 1000 V

I_F = 50 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 °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
Continuous forward current	I _F	T _C ≤ 40 °C	50	50	50	50	A
Surge non-repetitive forward current, Half Sine Wave	I _{F,SM}	T _C = 25 °C, t _p = 8.3 ms	400	400	400	400	A
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 T_j = 25 °C, unless otherwise specified

Parameter	Symbol	Conditions	KBPC50005T/W	KBPC5001T/W	KBPC5002T/W	KBPC5004T/W	Unit
Diode forward voltage	V _F	I _F = 25 A, T _j = 25 °C	1.1	1.1	1.1	1.1	V
Reverse current	I _R	V _R = 50 V, T _j = 25 °C	5	5	5	5	μA
		V _R = 50 V, T _j = 100 °C	500	500	500	500	

Thermal characteristics

Thermal resistance, junction - case	R _{thJA}		2.5	2.5	2.5	2.5	°C/W
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