



KBPC25005(W) THRU KBPC2510(W)

Bridge Rectifiers

Features

- UL recognition, file #E230084
- Universal 3-way terminals snap-on, wire wrap-around, or PCB mounting
- Glass passivated chip junction
- High surge current capability
- Low thermal resistance
- Solder dip 275 °C max. 7 s, per JESD 22-B106

Typical Applications

General purpose use in AC/DC bridge full wave rectification for power supply, home appliances, office equipment, industrial automation applications.

Mechanical Data

- **Package:** KBPC KBPC-W
Molding compound meets UL 94 V-0 flammability rating, RoHS-compliant
- **Terminals:** Tin plated leads, solderable per J-STD-002 and JESD22-B102
- Suffix letter "W" added to indicate wire leads(e.g. KBPC2510W).

■Maximum Ratings (T_a=25 Unless otherwise specified

PARAMETER	SYMBOL	UNIT	KBPC25005	KBPC2501	KBPC2502	KBPC2504	KBPC2506	KBPC2508	KBPC2510
Device marking code			KBPC25005	KBPC2501	KBPC2502	KBPC2504	KBPC2506	KBPC2508	KBPC2510
Maximum Repetitive Peak Reverse Voltage	VRRM	V	50	100	200	400	600	800	1000
Maximum RMS Voltage	VRMS	V	35	70	140	280	420	560	700
Maximum DC blocking Voltage	VDC	V	50	100	200	400	600	800	1000
Average rectified output current @60Hz sine wave, R-load, T _C =75	I _O	A	25						
Forward Surge Current (Non-repetitive) @8.3ms, Half-sine wave, 1 cycle, T _J =25	I _{FSM}	A	400						
Forward Surge Current (Non-repetitive) @1ms, square wave, 1 cycle, T _J =25			800						
Current squared time @1ms≤t≤8.3ms T _J =25, Rating of per diode	I ² t	A ² S	664						
Storage temperature	T _{stg}		-55 ~ +150						
Junction temperature	T _J		-55 ~ +150						

Dielectric strength



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■Electrical Characteristics $T_a=25$ Unless otherwise specified

PARAMETER	SYMBOL	UNIT	TEST CONDITIONS	KBPC25005	KBPC2501	KBPC2502	KBPC2504	KBPC2506	KBPC2508	KBPC2510
Maximum instantaneous forward voltage drop per diode	V _F	V	I _{FM} =12.5A	1.05						
Maximum DC reverse current at rated DC blocking voltage per diode	I _R	μ A	T _j =25	5						
			T _j =125	100						
Typical junction capacitance	C _j	pF	Measured at 1MHz and Applied Reverse Voltage of 4.0 V.D.C	104						

■Thermal Characteristics $T_a=25$ Unless otherwise specified

PARAMETER		SYMBOL	UNIT	KBPC25005	KBPC2501	KBPC2502	KBPC2504	KBPC2506	KBPC2508	KBPC2510
Thermal Resistance	Between junction and case, With heatsink	R _{θJ-C}	/W	2.0						

Note: Device mounted on 75mm x 45mm x 5.5mm Aluminum Plate Heatsink.

■Ordering Information (Example)

PREFERRED P/N	PACKAGE CODE	UNIT WEIGHT (g)	MINIMUM PACKAGE(pcs)	INNER BOX QUANTITY(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
KBPC25005-KBPC2510	A1	Approximate 24.5	50	50	500	Paper Box
KBPC25005W-KBPC2510W	A1	Approximate 22.5	50	50	500	Paper Box

■ Characteristics (Typical)

FIG1:I_o-T_c Curve

0 40 60 80 100 120 140 1614 40 N



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