



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 80 100 120 140 160 180 200 220 240 260 280 300 320 340 360 380 400 420 440 460 480 500 520 540 560 580 600 620 640 660 680 700 720 740 760 780 800 820 840 860 880 900 920 940 960 980 1000



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