

Single-phase bridge rectifier KBPC5004 thru KBPC5010

Feature

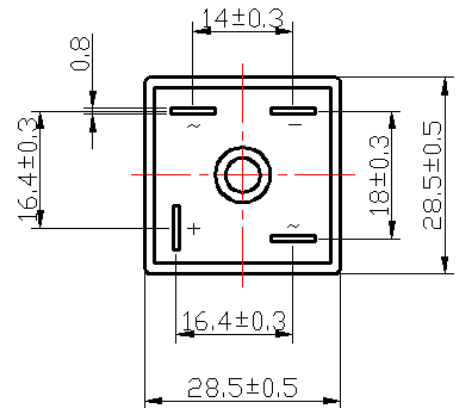
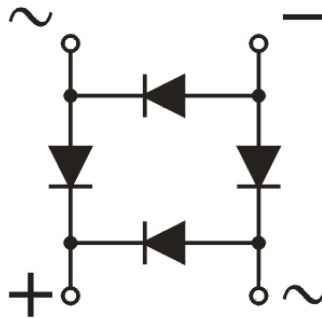
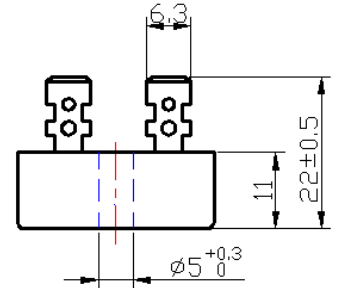
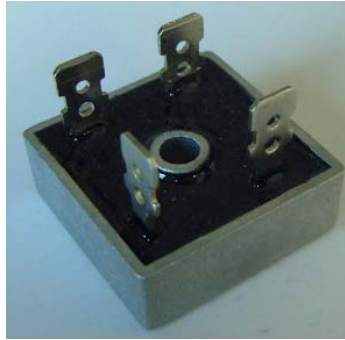
- 6.3mm standard pin
- Low forward voltage drop
- Isolation voltage 2500V ~

Application

- Power supply for DC power device
- Input rectifier for PWM converter
- Power supply for DC device

Advantage

- Easy mounting
- Small volume, light weight
- Low thermal resistance
high heat-conduction rate
Low temperature rise



Maximum value

Symbol	Parameter	Rating				Unit
		KBPC5004	KBPC5006	KBPC5008	KBPC5010	
V_{RRM}	Peak reverse repetitive voltage	400	600	800	1000	V
V_{RSM}	Peak reverse non-repetitive voltage	500	700	900	1100	V

Symbol	Parameter	Test condition	Rating	Unit
$I_F (AV)$	Forward average current	180° sine half-wave 50HZ single-sided heat dissipation, $T_C=55^{\circ}C$	50	A
I_{FSM}	Forward surge current	$t=10ms, 50HZ, sin, T_{jm}$	450	A
I^2t	I^2t value		840	A ² S
V_{ISO}	Isolation voltage	AC one minute	2500	V
T_j	Operating junction temperature		-40 to +150	°C
T_{jm}	Rated junction temperature		150	°C
T_{stg}	Storage temperature		-40 to +125	°C
M_d	Mounting torque M5		2	N·m
W_t	Weight		15	g

Electrical characteristics

Symbol	Parameter	Test condition	Rating	Unit
I_{RRM}	Peak reverse repetitive current	$V_R=V_{RRM}$, sine half-wave, $T_j=25^{\circ}C$	5	μA
		$V_R=V_{RRM}$, sine half-wave, $T_j=150^{\circ}C$	500	μA
V_{FM}	Peak forward voltage	$I_{FM}=25A$, $T_j=25^{\circ}C$	1.1	V
$R_{th(j-c)}$	Thermal impedance (junction-case)	Single-sided heat dissipation, sine half-wave	1.4	°C/W

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