

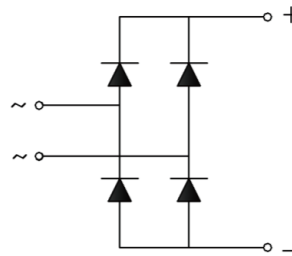
Feature

- International standard package
- Low forward voltage drop
- Isolation voltage 2000V

Application

- DC power suppliers for apparatus device
- Input rectifying power supply for PWM converters
- Inverter welders

Maximum value



Symbol	Parameter	Rating			Unit
		KBPC1002	KBPC1006	KBPC1010	
V_{RRM}	Peak reverse repetitive voltage	200	600	1000	V
V_{RSM}	Peak reverse non-repetitive voltage	300	700	1100	V

Symbol	Parameter	Test condition	Rating	Unit
$I_{F(AV)}$	Mean on-state current	180° half sine wave 50Hz One side heat radiation $T_c: 55^\circ\text{C}$	10	A
I_{FSM}	Forward surge current	$t=10\text{ms}, 50\text{Hz}, \sin, T_{jm}$	120	A
I^2t	I^2t value	$V_R = 0.6 V_{RRM}, T_{jm}$	172	A^2S
V_{iso}	Isolation voltage	50Hz, R.M.S, $t=1\text{min}, I_{iso}: 1\text{mA}(\text{max})$	2000	V
T_j	Operating junction temperature		-40 to +150	$^\circ\text{C}$
T_{jm}	Rated junction temperature		150	$^\circ\text{C}$
T_{stg}	Storage temperature		-40 to +150	$^\circ\text{C}$
M_d	Mounting torque (copper plate) M5		2	$\text{N} \cdot \text{M}$
Wt	weight		18	g

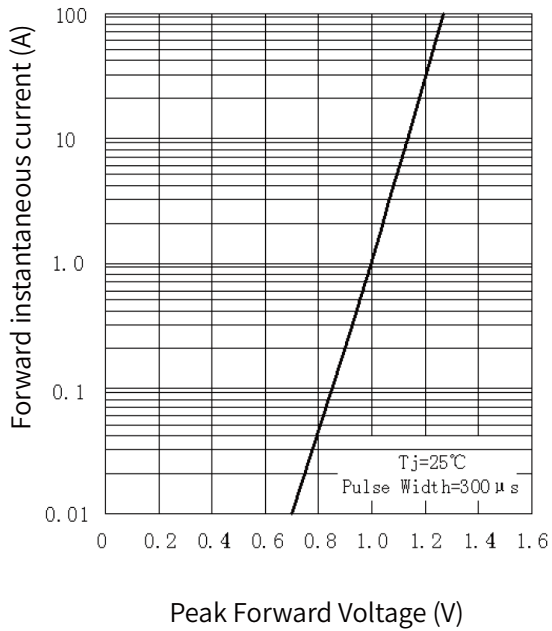
Electrical characteristics :

Symbol	Parameter	Test condition	Rating	Unit
I_{RRM}	Peak reverse repetitive current	$V_R = V_{RRM}$, sine half $T_j = 25^\circ\text{C}$	5	μA
		$V_R = V_{RRM}$, sine half $T_j = 150^\circ\text{C}$	3	mA
V_{FM}	Peak forward voltage	$I_{FM} = 5\text{A}, T_j = 25^\circ\text{C}$	1.1	V
$R_{th(j-c)}$	Thermal impedance (junction-case)	Single-side heat dissipation, sine half wave	1.6	$^\circ\text{C}/\text{W}$

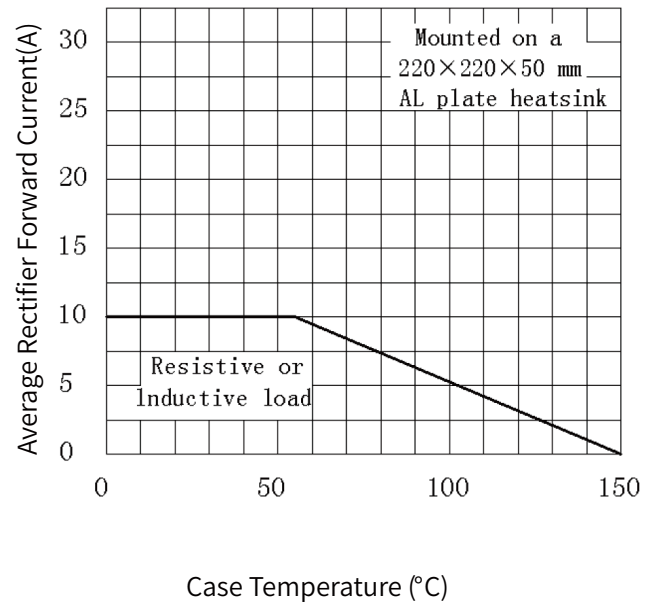
Performance Curves

02

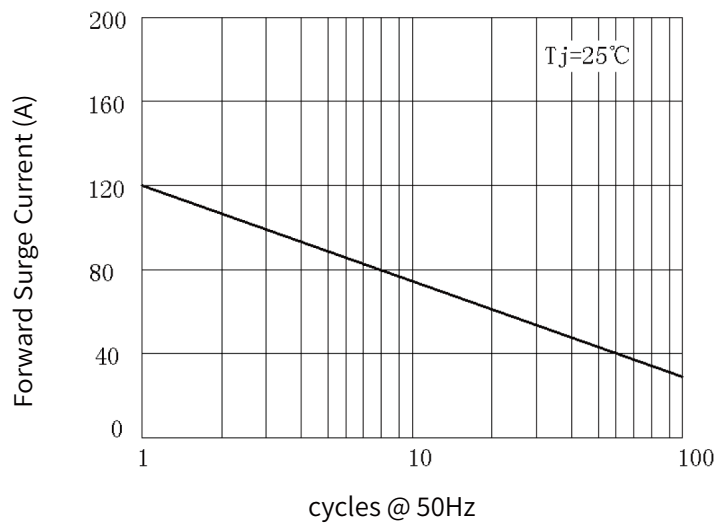
Forward curve

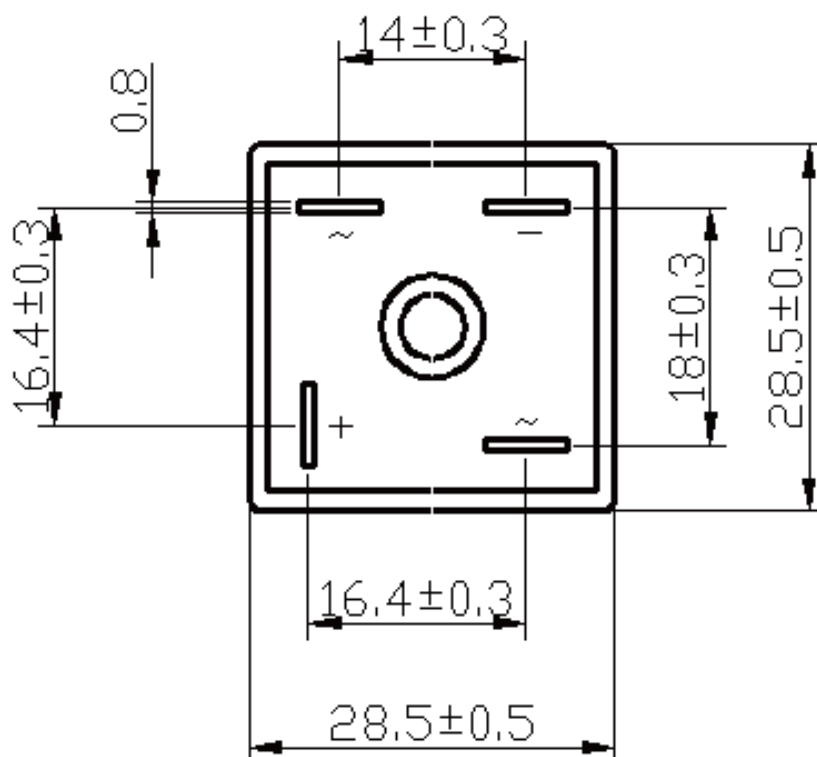
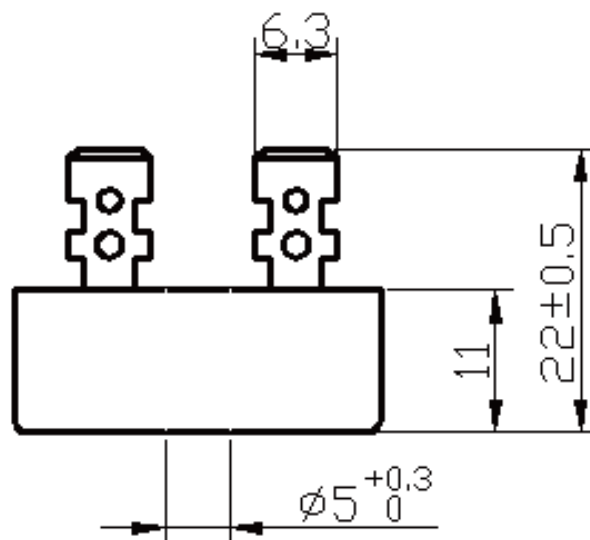


Case temperature and average forward current characteristic curve



Forward Surge current cycle number curve



Dimension


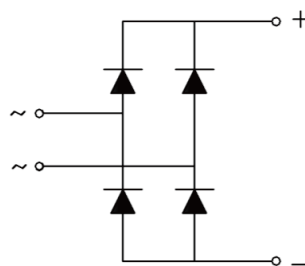
Feature

- International standard package
- Low forward voltage drop
- Isolation voltage 2000V

Application

- DC power suppliers for apparatus device
- Input rectifying power supply for PWM converters
- Inverter welders

Maximum value



Symbol	Parameter	Rating			Unit
		KBPC1502	KBPC1506	KBPC1510	
V_{RRM}	Peak reverse repetitive voltage	200	600	1000	V
V_{RSM}	Peak reverse non-repetitive voltage	300	700	1100	V

Symbol	Parameter	Test condition	Rating	Unit
$I_{F(AV)}$	Mean on-state current	180° half sine wave 50Hz One side heat radiation $T_c:55^{\circ}\text{C}$	15	A
I_{FSM}	Forward surge current	$t=10\text{ms}, 50\text{Hz}, \sin, T_{jm}$	220	A
I^2t	I^2t value	$V_R = 0.6V_{RRM}, T_{jm}$	270	A^2S
V_{ISO}	Isolation voltage	50Hz, R.M.S, $t=1\text{min}, I_{iso}:1\text{mA}(\text{max})$	2000	V
T_j	Operating junction temperature		-40 to +150	$^{\circ}\text{C}$
T_{jm}	Rated junction temperature		150	$^{\circ}\text{C}$
T_{stg}	Storage temperature		-40 to +150	$^{\circ}\text{C}$
M_d	Mounting torque (copper plate) M5		2	$\text{N} \cdot \text{M}$
Wt	weight		18	g

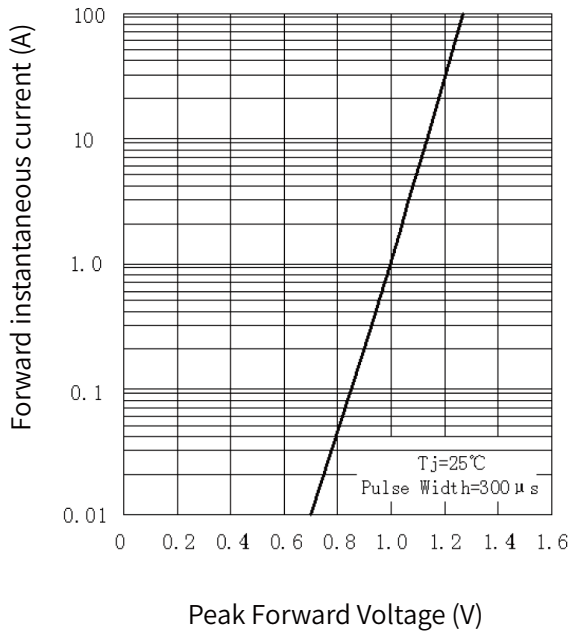
Electrical characteristics :

Symbol	Parameter	Test condition	Rating	Unit
I_{RRM}	Peak reverse repetitive current	$V_R=V_{RRM}$, sine half $T_j=25^{\circ}\text{C}$	5	μA
		$V_R=V_{RRM}$, sine half $T_j=150^{\circ}\text{C}$	3	mA
V_{FM}	Peak forward voltage	$I_{FM}=7.5\text{A}, T_j=25^{\circ}\text{C}$	1.1	V
$R_{th(j-c)}$	Thermal impedance (junction-case)	Single-side heat dissipation, sine half wave	1.6	$^{\circ}\text{C}/\text{W}$

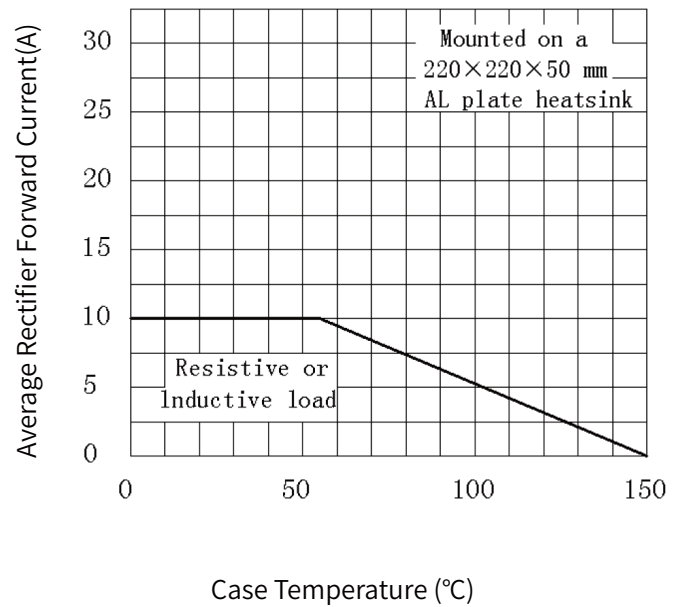
Performance Curves

05

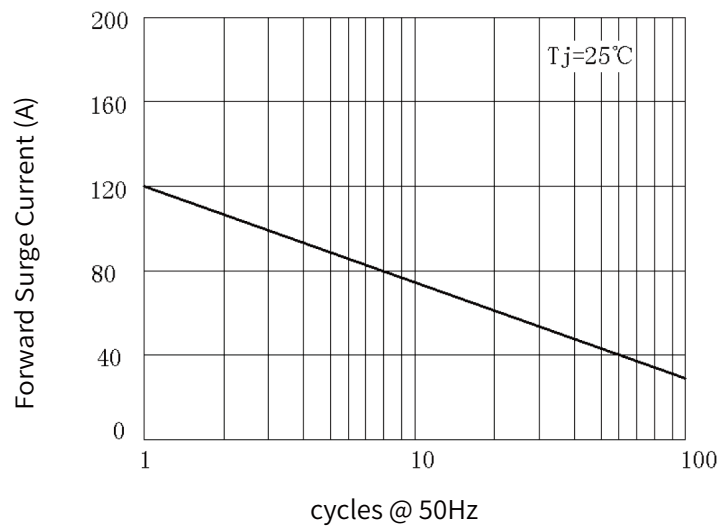
Forward curve



Case temperature and average forward current characteristic curve

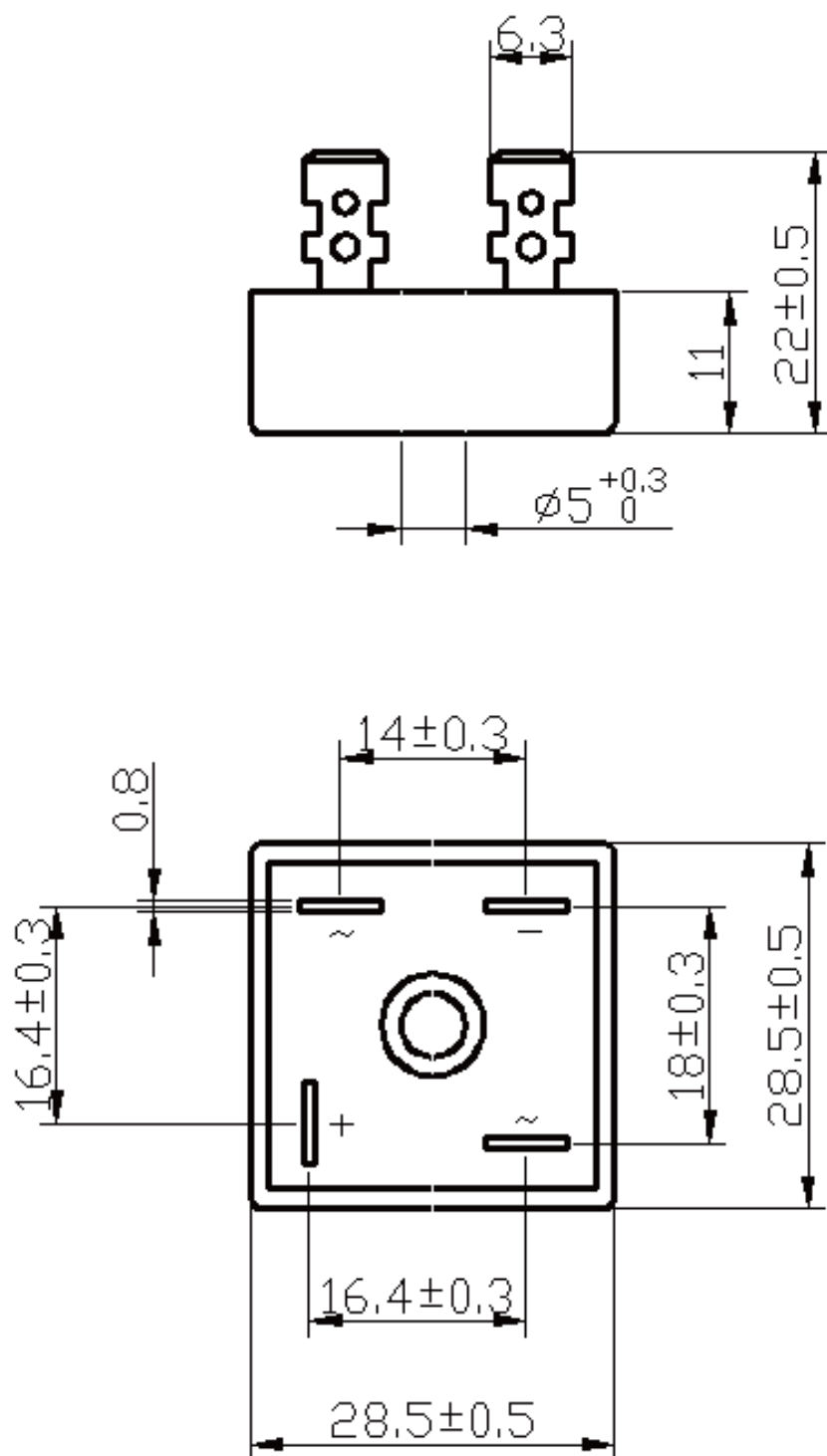


Forward Surge current cycle number curve



Dimension

06



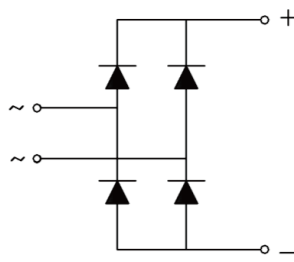
Feature

- International standard package
- Low forward voltage drop
- Isolation voltage 2000V

Application

- DC power suppliers for apparatus device
- Input rectifying power supply for PWM converters
- Inverter welders

Maximum value



Symbol	Parameter	Rating			Unit
		KBPC2502	KBPC2506	KBPC2510	
V_{RRM}	Peak reverse repetitive voltage	200	600	1000	V
V_{RSM}	Peak reverse non-repetitive voltage	300	700	1100	V

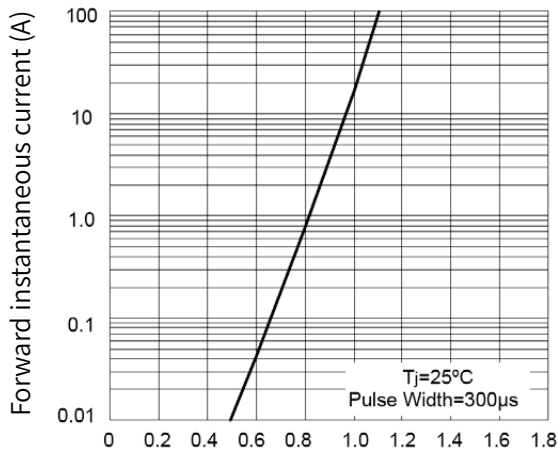
Symbol	Parameter	Test condition	Rating	Unit
$I_{F(AV)}$	Mean on-state current	180° half sine wave 50Hz One side heat radiation $T_c: 55^\circ\text{C}$	25	A
I_{FSM}	Forward surge current	$t=10\text{ms}, 50\text{Hz}, \sin, T_{jm}$	300	A
I^2t	I^2t value	$V_R = 0.6V_{RRM}, T_{jm}$	374	A^2S
V_{ISO}	Isolation voltage	50Hz, R.M.S, $t=1\text{min}, I_{iso}: 1\text{mA}(\text{max})$	2000	V
T_j	Operating junction temperature		-40 to +150	$^\circ\text{C}$
T_{jm}	Rated junction temperature		150	$^\circ\text{C}$
T_{stg}	Storage temperature		-40 to +150	$^\circ\text{C}$
M_d	Mounting torque (copper plate) M5		2	$\text{N} \cdot \text{M}$
Wt	weight		21	g

Electrical characteristics :

Symbol	Parameter	Test condition	Rating	Unit
I_{RRM}	Peak reverse repetitive current	$V_R = V_{RRM}$, sine half $T_j = 25^\circ\text{C}$	5	μA
		$V_R = V_{RRM}$, sine half $T_j = 150^\circ\text{C}$	3	mA
V_{FM}	Peak forward voltage	$I_{FM} = 12.5\text{A}, T_j = 25^\circ\text{C}$	1.1	V
$R_{th(j-c)}$	Thermal impedance (junction-case)	Single-side heat dissipation, sine half wave	1.9	$^\circ\text{C}/\text{W}$

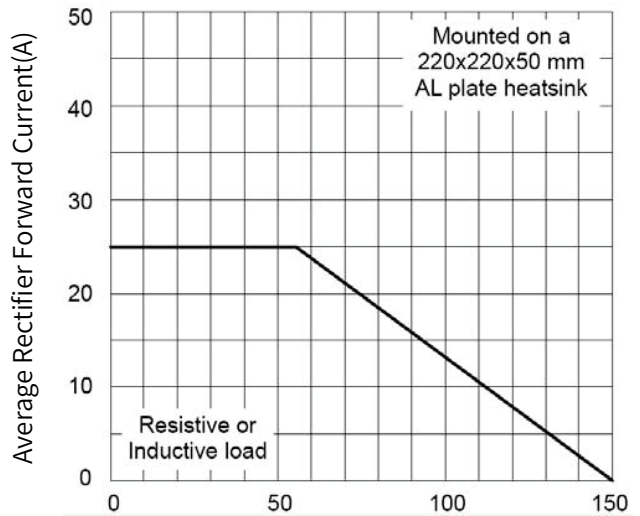
Performance Curves

Forward curve



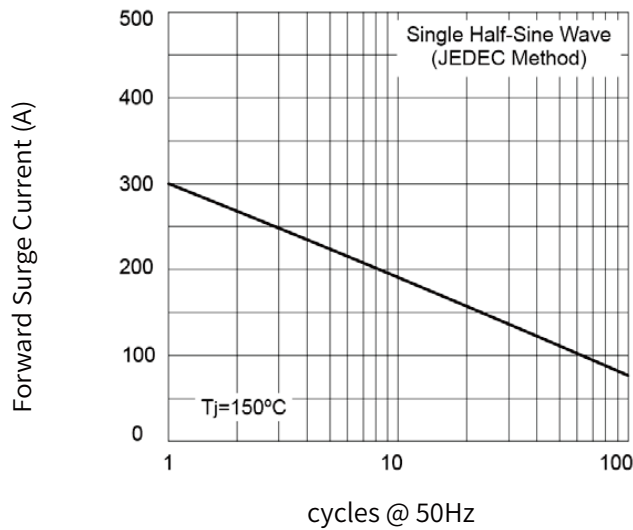
Peak Forward Voltage (V)

Case temperature and average forward current characteristic curve



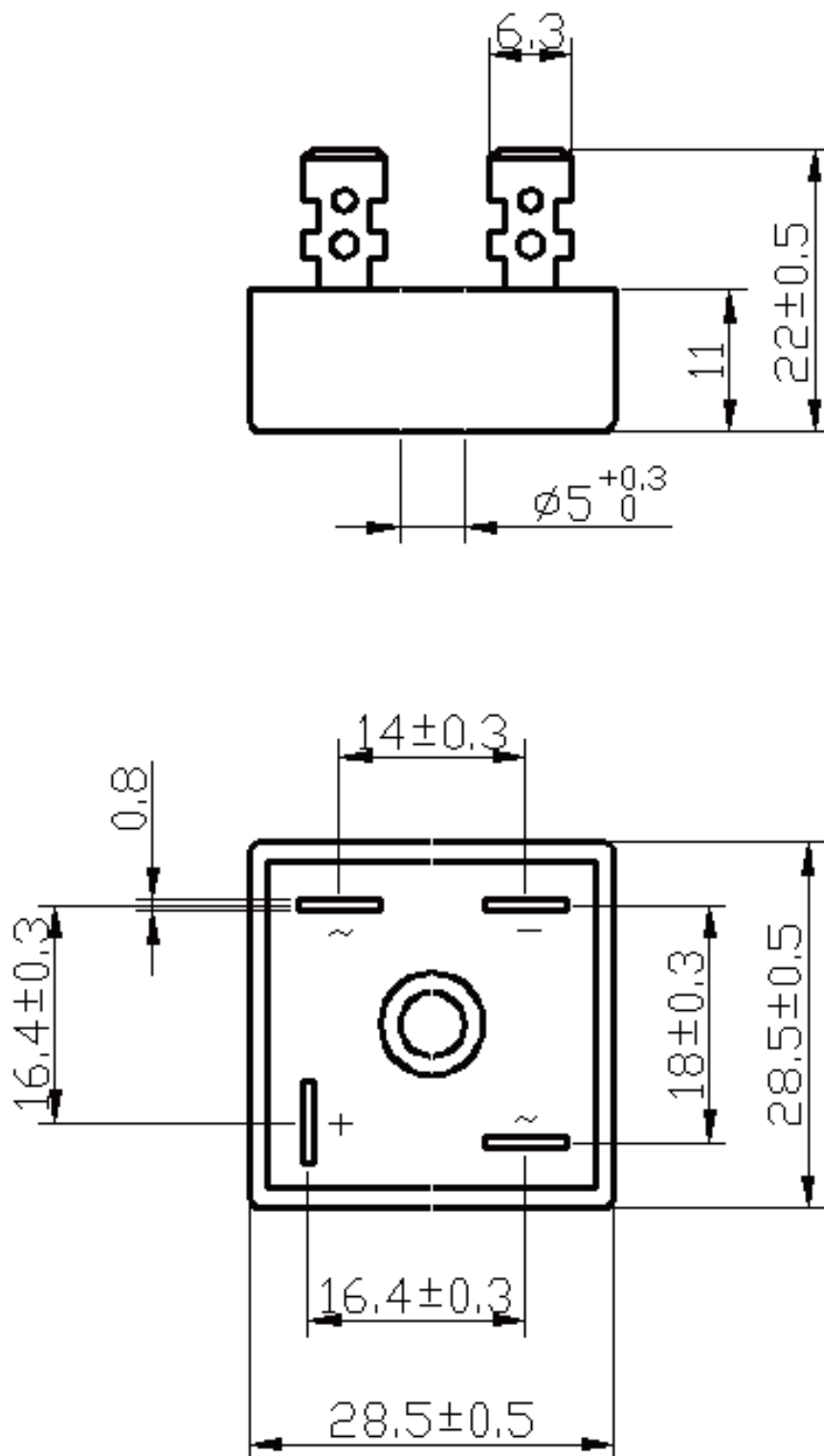
Case Temperature ($^\circ\text{C}$)

Forward Surge current cycle number curve



Dimension

09



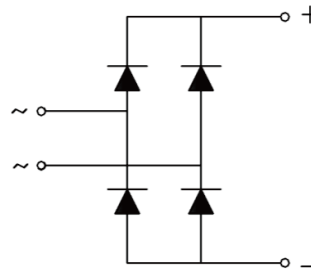
Feature

- International standard package
- Low forward voltage drop
- Isolation voltage 2000V

Application

- DC power suppliers for apparatus device
- Input rectifying power supply for PWM converters
- Inverter welders

Maximum value



10

Symbol	Parameter	Rating			Unit
		KBPC3502	KBPC3506	KBPC3510	
V_{RRM}	Peak reverse repetitive voltage	200	600	1000	V
V_{RSM}	Peak reverse non-repetitive voltage	300	700	1100	V

Symbol	Parameter	Test condition	Rating	Unit
$I_{F(AV)}$	Mean on-state current	180° half sine wave 50Hz One side heat radiation $T_c:55^{\circ}\text{C}$	35	A
I_{FSM}	Forward surge current	$t=10\text{ms}, 50\text{Hz}, \sin, T_{jm}$	400	A
I^2t	I^2t value	$V_R = 0.6V_{RRM}, T_{jm}$	660	A^2S
V_{ISO}	Isolation voltage	50Hz, R.M.S, $t=1\text{min}, I_{iso}:1\text{mA}(\text{max})$	2000	V
T_j	Operating junction temperature		-40 to +150	$^{\circ}\text{C}$
T_{jm}	Rated junction temperature		150	$^{\circ}\text{C}$
T_{stg}	Storage temperature		-40 to +150	$^{\circ}\text{C}$
M_d	Mounting torque (copper plate) M5		2	$\text{N} \cdot \text{M}$
Wt	weight		21	g

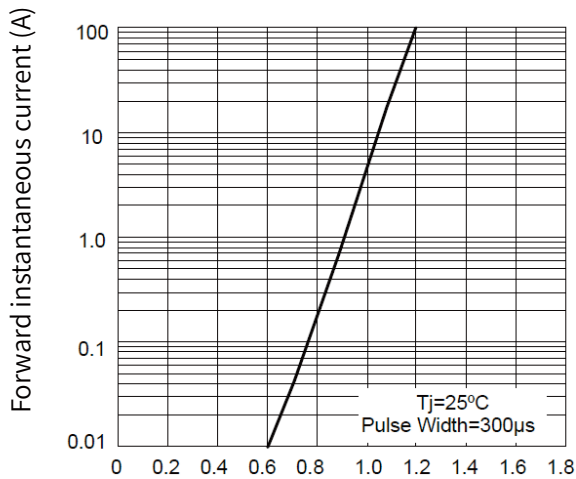
Electrical characteristics :

Symbol	Parameter	Test condition	Rating	Unit
I_{RRM}	Peak reverse repetitive current	$V_R=V_{RRM}$, sine half $T_j=25^{\circ}\text{C}$	5	μA
		$V_R=V_{RRM}$, sine half $T_j=150^{\circ}\text{C}$	3	mA
V_{FM}	Peak forward voltage	$I_{FM}=17.5\text{A}, T_j=25^{\circ}\text{C}$	1.1	V
$R_{th(j-c)}$	Thermal impedance (junction-case)	Single-side heat dissipation, sine half wave	1.4	$^{\circ}\text{C}/\text{W}$

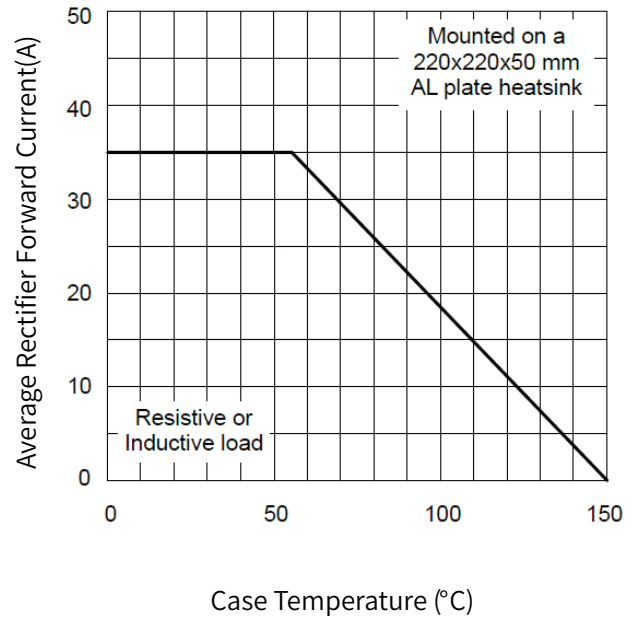
Performance Curves

11

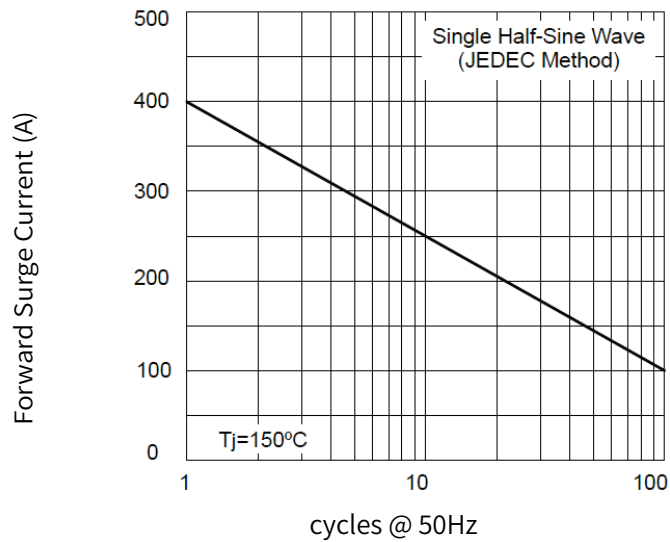
Forward curve



Case temperature and average forward current characteristic curve



Forward Surge current cycle number curve



Dimension

12

