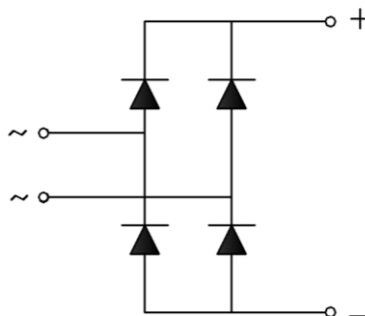


## Feature

- 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

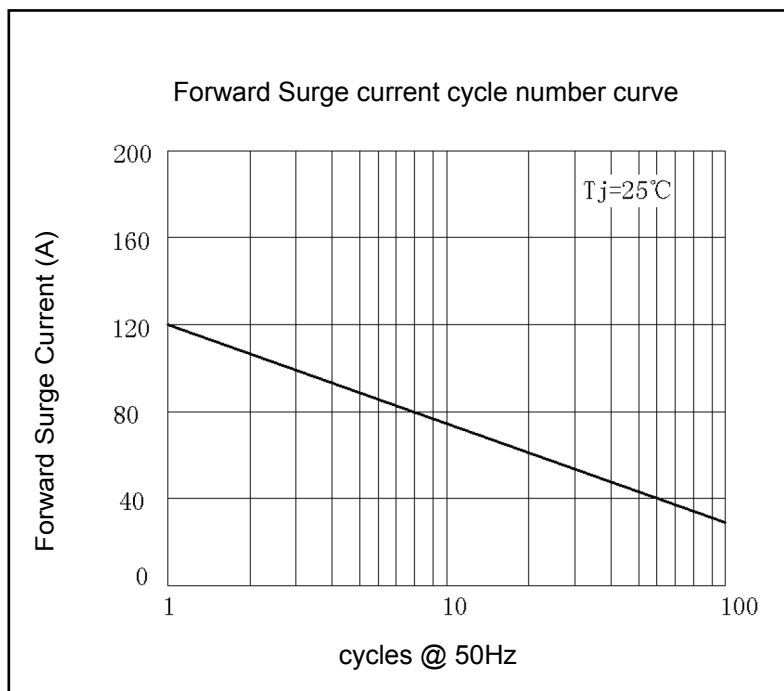
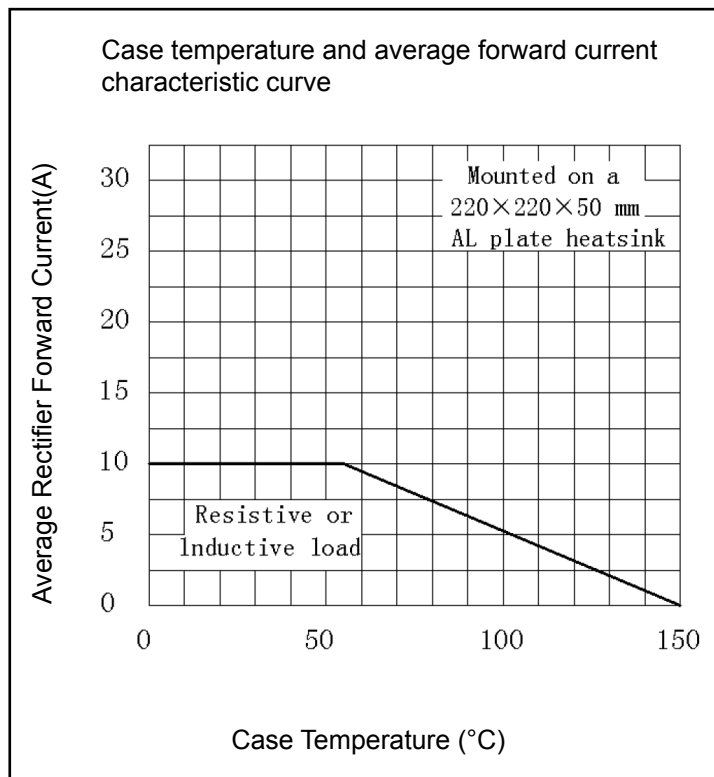
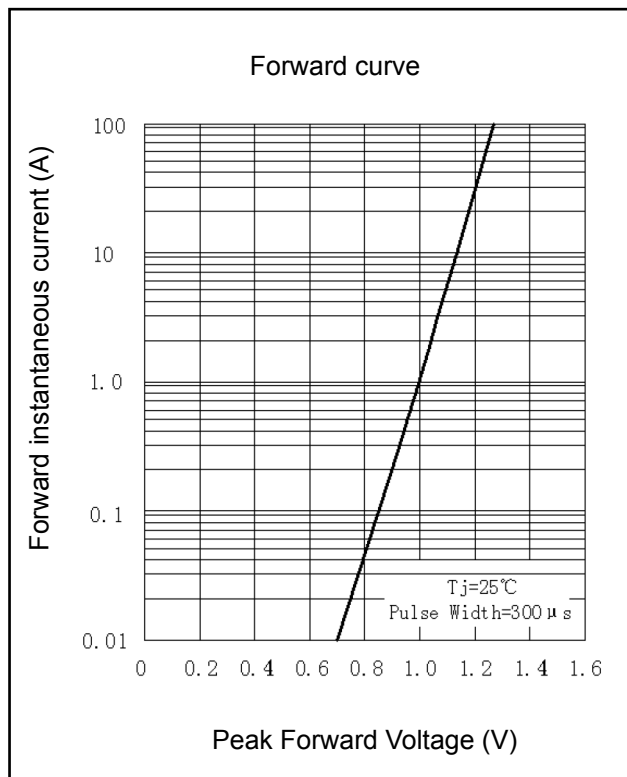
| Symbol | Parameter                           | Rating   |          |          | Unit |
|--------|-------------------------------------|----------|----------|----------|------|
|        |                                     | KBPC1002 | KBPC1006 | KBPC1010 |      |
| VRRM   | Peak reverse repetitive voltage     | 200      | 600      | 1000     | V    |
| VRSM   | Peak reverse non-repetitive voltage | 300      | 700      | 1100     | V    |

| Symbol           | Parameter                         | Test condition                                               | Rating      | Unit             |
|------------------|-----------------------------------|--------------------------------------------------------------|-------------|------------------|
| IF(AV)           | Mean on-state current             | 180° half sine wave 50Hz<br>One side heat radiation Tc:55° C | 10          | A                |
| IFSM             | Forward surge current             | t=10ms,50Hz,sin,Tjm                                          | 120         | A                |
| I <sup>2</sup> t | I <sup>2</sup> t value            | VR = 0.6VRRM, Tjm                                            | 172         | A <sup>2</sup> S |
| VISO             | Isolation voltage                 | 50Hz, R.M.S, t=1min, liso:1mA(max)                           | 2000        | V                |
| Tj               | Operating junction temperature    |                                                              | -40 to +150 | °C               |
| Tjm              | Rated junction temperature        |                                                              | 150         | °C               |
| Tstg             | Storage temperature               |                                                              | -40 to +150 | °C               |
| Md               | Mounting torque (copper plate) M5 |                                                              | 2           | N•M              |
| Wt               | weight                            |                                                              | 18          | g                |

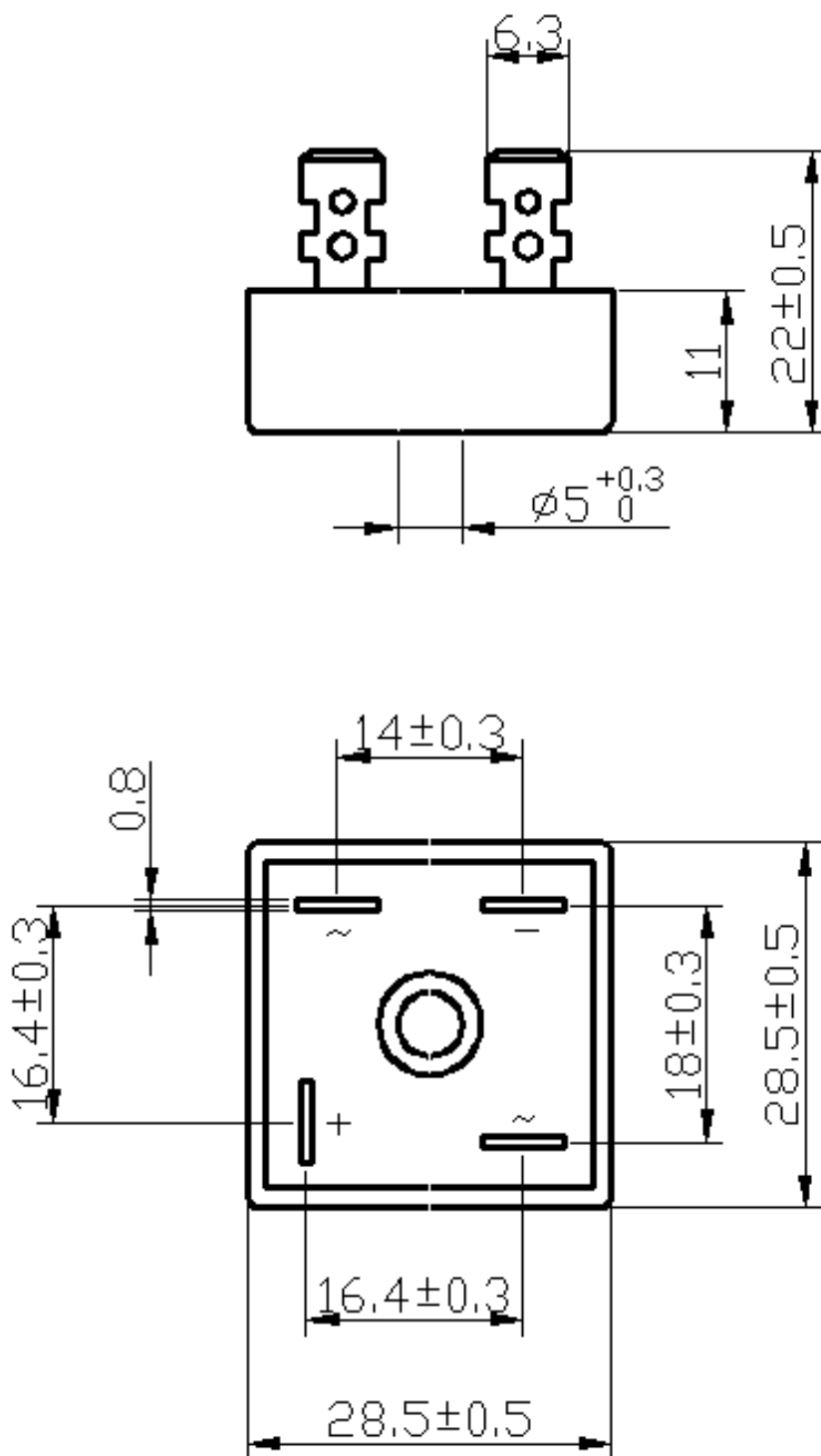
## Electrical characteristics

| Symbol   | Parameter                         | Test condition                               | Rating | Unit |
|----------|-----------------------------------|----------------------------------------------|--------|------|
| IRRM     | Peak reverse repetitive current   | VR=VRRM, sine half Tj=25°C                   | 5      | μA   |
|          |                                   | VR=VRRM, sine half Tj=150°C                  | 3      | mA   |
| VFM      | Peak forward voltage              | IFM =5A, Tj=25 °C                            | 1.1    | V    |
| Rth(j-c) | Thermal impedance (junction-case) | Single-side heat dissipation, sine half wave | 1.6    | °C/W |

## Performance Curves



Dimension

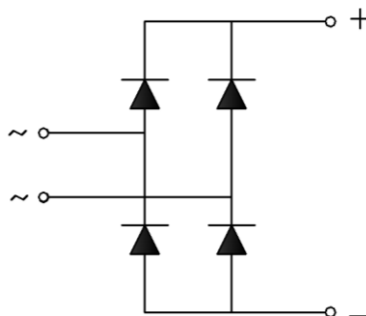


## Feature

- 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

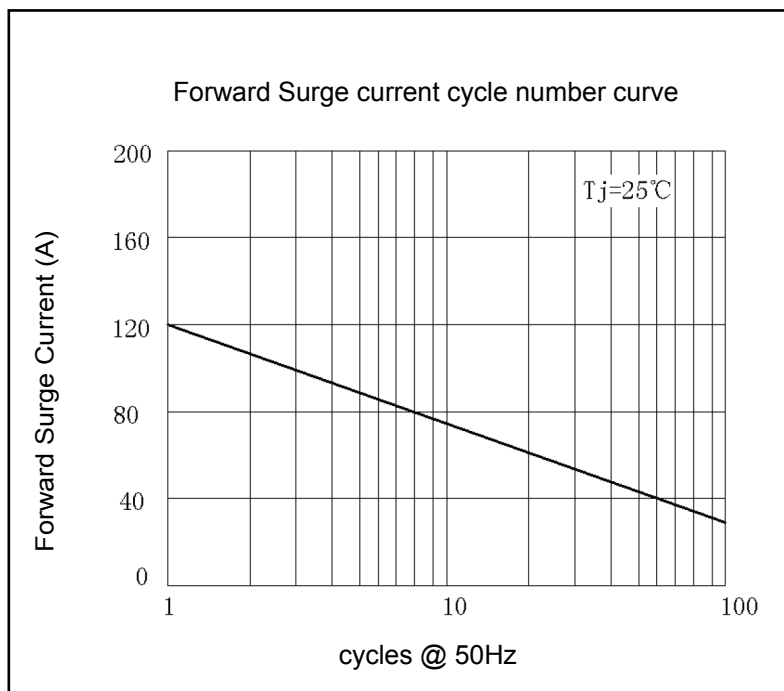
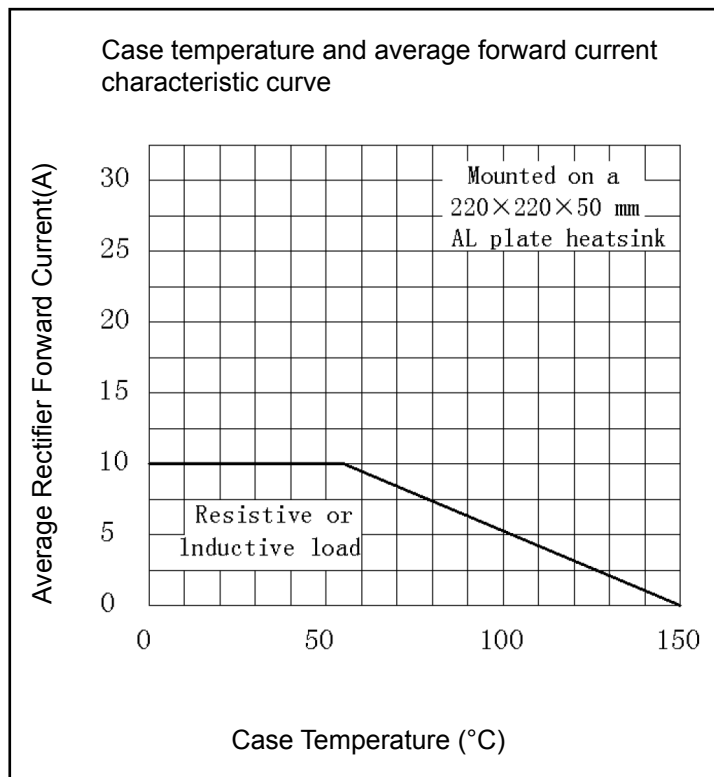
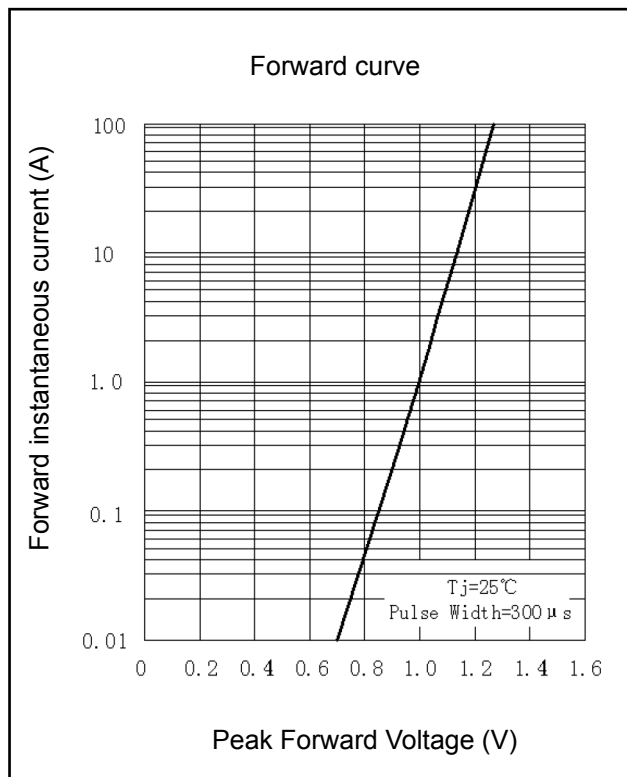
| Symbol | Parameter                           | Rating   |          |          | Unit |
|--------|-------------------------------------|----------|----------|----------|------|
|        |                                     | KBPC1502 | KBPC1506 | KBPC1510 |      |
| VRRM   | Peak reverse repetitive voltage     | 200      | 600      | 1000     | V    |
| VRSM   | Peak reverse non-repetitive voltage | 300      | 700      | 1100     | V    |

| Symbol           | Parameter                         | Test condition                                               | Rating      | Unit             |
|------------------|-----------------------------------|--------------------------------------------------------------|-------------|------------------|
| IF(AV)           | Mean on-state current             | 180° half sine wave 50Hz<br>One side heat radiation Tc:55° C | 15          | A                |
| IFSM             | Forward surge current             | t=10ms,50Hz,sin,Tjm                                          | 220         | A                |
| I <sup>2</sup> t | I <sup>2</sup> t value            | VR = 0.6VRRM, Tjm                                            | 270         | A <sup>2</sup> S |
| VISO             | Isolation voltage                 | 50Hz, R.M.S, t=1min, liso:1mA(max)                           | 2000        | V                |
| Tj               | Operating junction temperature    |                                                              | -40 to +150 | °C               |
| Tjm              | Rated junction temperature        |                                                              | 150         | °C               |
| Tstg             | Storage temperature               |                                                              | -40 to +150 | °C               |
| Md               | Mounting torque (copper plate) M5 |                                                              | 2           | N•M              |
| Wt               | weight                            |                                                              | 18          | g                |

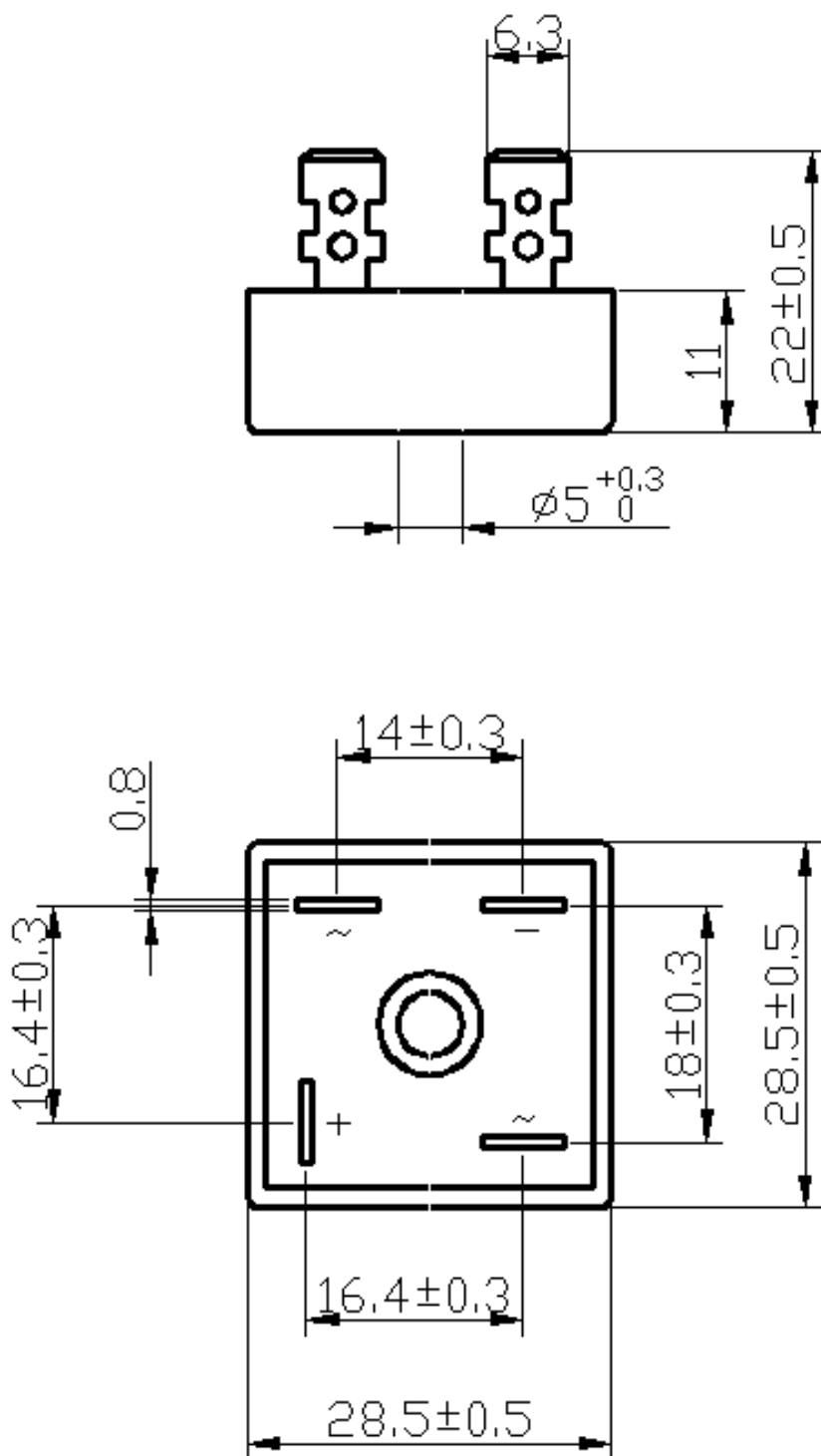
## Electrical characteristics

| Symbol   | Parameter                         | Test condition                               | Rating | Unit |
|----------|-----------------------------------|----------------------------------------------|--------|------|
| IRRM     | Peak reverse repetitive current   | VR=VRRM, sine half Tj=25°C                   | 5      | μA   |
|          |                                   | VR=VRRM, sine half Tj=150°C                  | 3      | mA   |
| VFM      | Peak forward voltage              | IFM =7.5A, Tj=25 °C                          | 1.1    | V    |
| Rth(j-c) | Thermal impedance (junction-case) | Single-side heat dissipation, sine half wave | 1.6    | °C/W |

## Performance Curves



Dimension



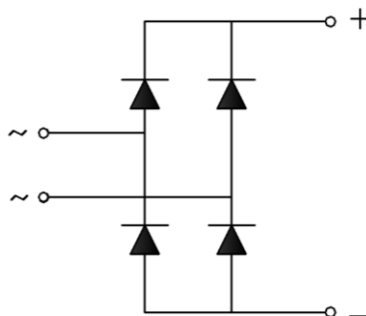
## Feature

- 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



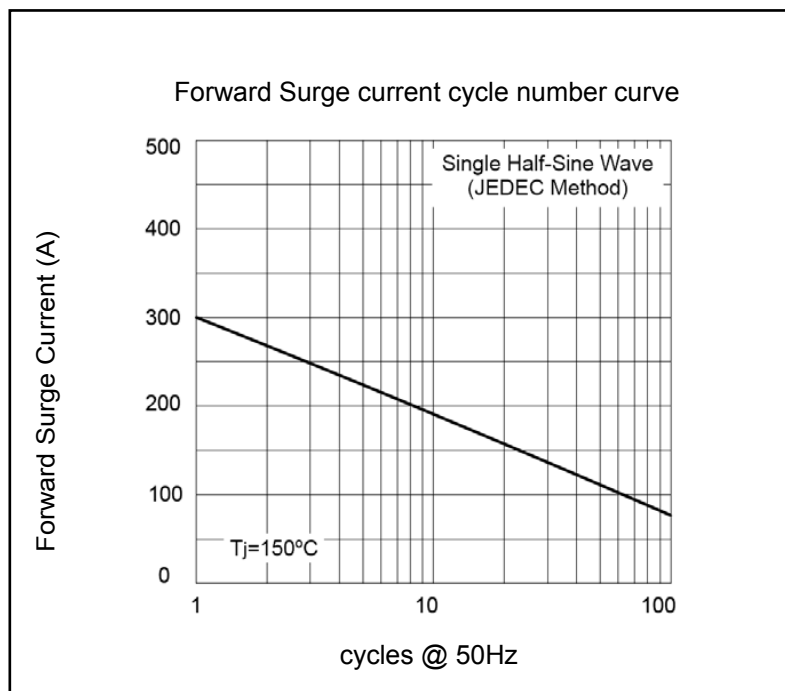
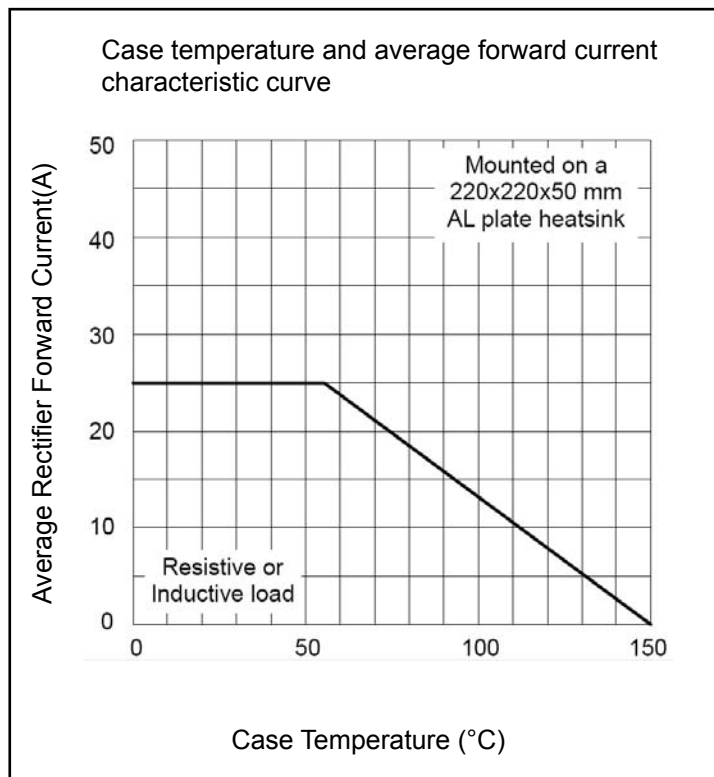
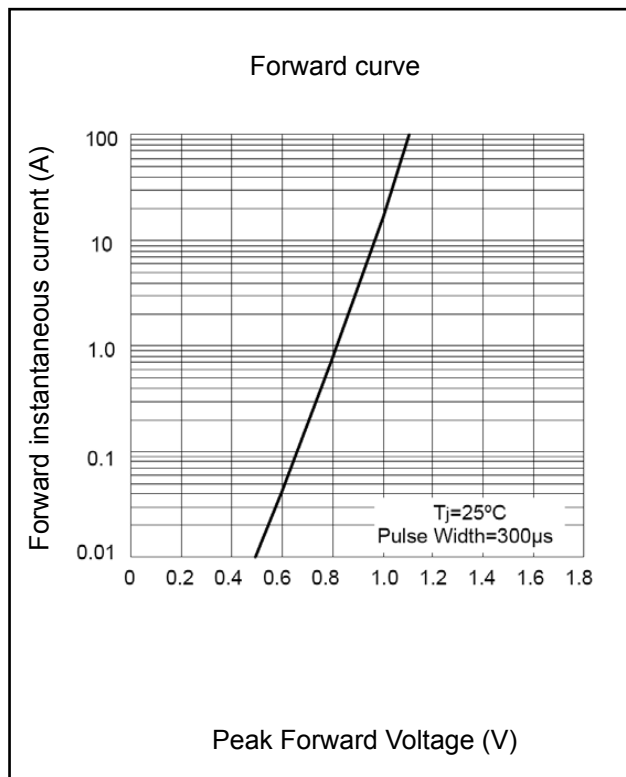
| Symbol | Parameter                           | Rating   |          |          | Unit |
|--------|-------------------------------------|----------|----------|----------|------|
|        |                                     | KBPC2502 | KBPC2506 | KBPC2510 |      |
| VRRM   | Peak reverse repetitive voltage     | 200      | 600      | 1000     | V    |
| VRSM   | Peak reverse non-repetitive voltage | 300      | 700      | 1100     | V    |

| Symbol           | Parameter                         | Test condition                                               | Rating      | Unit             |
|------------------|-----------------------------------|--------------------------------------------------------------|-------------|------------------|
| IF(AV)           | Mean on-state current             | 180° half sine wave 50Hz<br>One side heat radiation Tc:55° C | 25          | A                |
| IFSM             | Forward surge current             | t=10ms,50Hz,sin,Tjm                                          | 300         | A                |
| I <sup>2</sup> t | I <sup>2</sup> t value            | VR = 0.6VRRM, Tjm                                            | 374         | A <sup>2</sup> S |
| VISO             | Isolation voltage                 | 50Hz, R.M.S, t=1min, liso:1mA(max)                           | 2000        | V                |
| Tj               | Operating junction temperature    |                                                              | -40 to +150 | °C               |
| Tjm              | Rated junction temperature        |                                                              | 150         | °C               |
| Tstg             | Storage temperature               |                                                              | -40 to +150 | °C               |
| Md               | Mounting torque (copper plate) M5 |                                                              | 2           | N•M              |
| Wt               | weight                            |                                                              | 21          | g                |

## Electrical characteristics

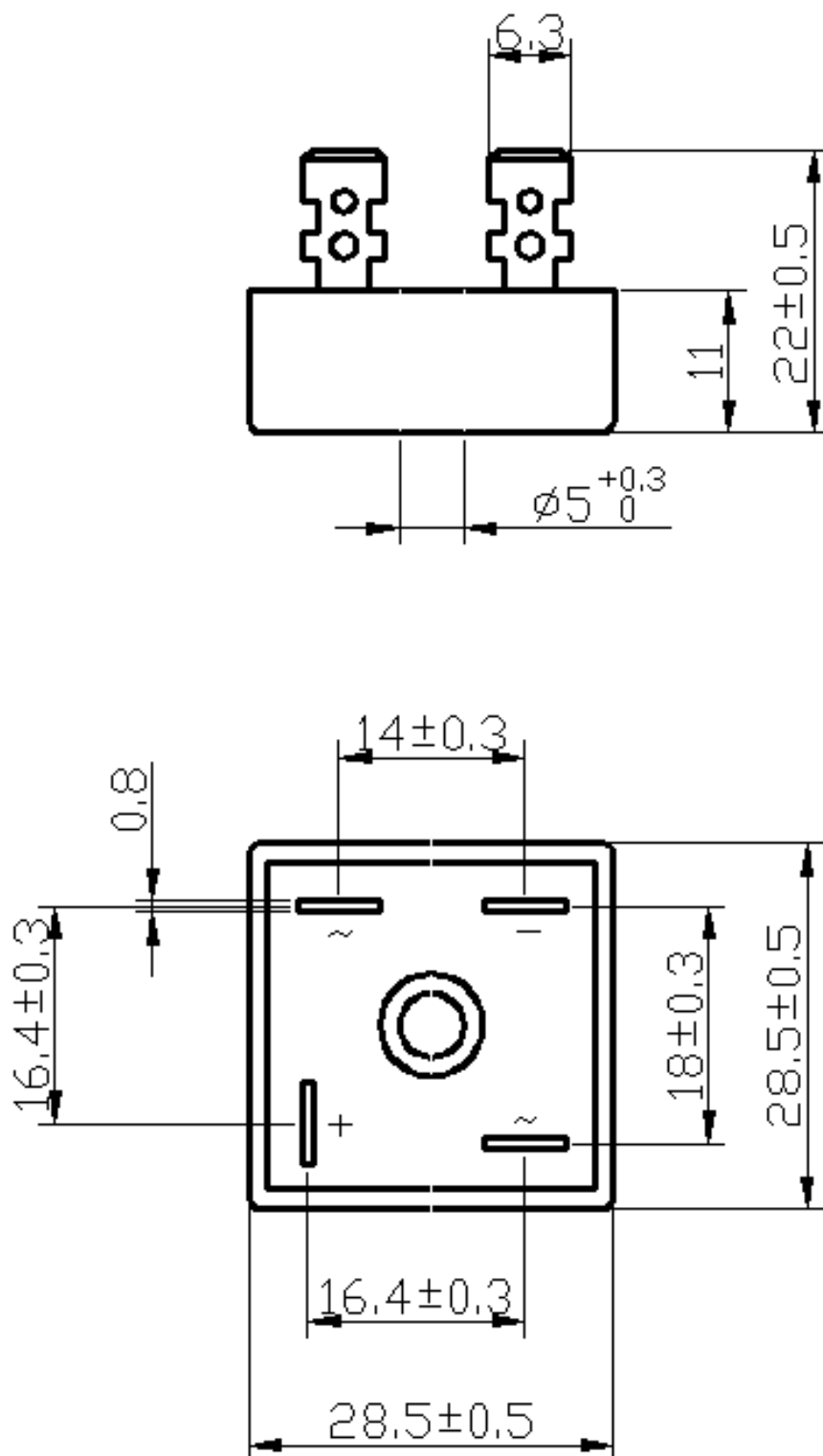
| Symbol   | Parameter                         | Test condition                               | Rating | Unit |
|----------|-----------------------------------|----------------------------------------------|--------|------|
| IRRM     | Peak reverse repetitive current   | VR=VRRM, sine half Tj=25°C                   | 5      | μA   |
|          |                                   | VR=VRRM, sine half Tj=150°C                  | 3      | mA   |
| VFM      | Peak forward voltage              | IFM =12.5A, Tj=25°C                          | 1.1    | V    |
| Rth(j-c) | Thermal impedance (junction-case) | Single-side heat dissipation, sine half wave | 1.9    | °C/W |

## Performance Curves





Dimension

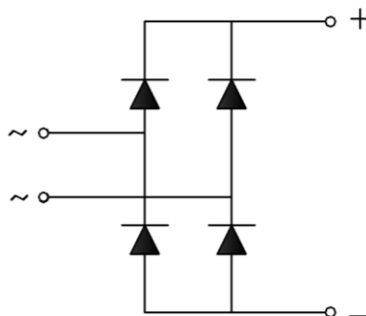


## Feature

- 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 |
|--------|-------------------------------------|----------|----------|----------|------|
|        |                                     | KBPC3502 | KBPC3506 | KBPC3510 |      |
| VRRM   | Peak reverse repetitive voltage     | 200      | 600      | 1000     | V    |
| VRSM   | Peak reverse non-repetitive voltage | 300      | 700      | 1100     | V    |

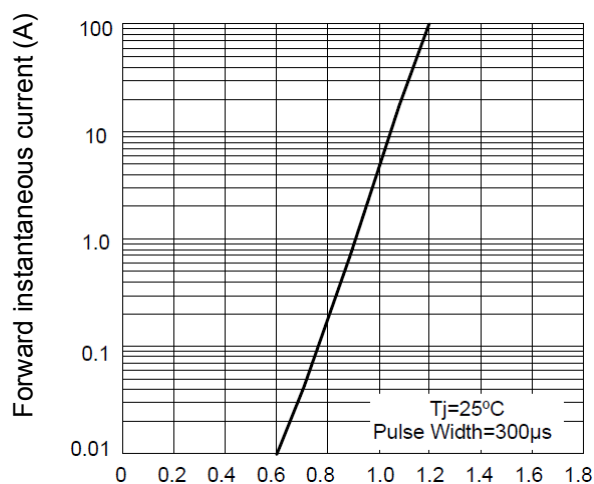
| Symbol           | Parameter                         | Test condition                                               | Rating      | Unit             |
|------------------|-----------------------------------|--------------------------------------------------------------|-------------|------------------|
| IF(AV)           | Mean on-state current             | 180° half sine wave 50Hz<br>One side heat radiation Tc:55° C | 35          | A                |
| IFSM             | Forward surge current             | t=10ms,50Hz,sin,Tjm                                          | 400         | A                |
| I <sup>2</sup> t | I <sup>2</sup> t value            | VR = 0.6VRRM, Tjm                                            | 660         | A <sup>2</sup> S |
| VISO             | Isolation voltage                 | 50Hz, R.M.S, t=1min, liso:1mA(max)                           | 2000        | V                |
| Tj               | Operating junction temperature    |                                                              | -40 to +150 | °C               |
| Tjm              | Rated junction temperature        |                                                              | 150         | °C               |
| Tstg             | Storage temperature               |                                                              | -40 to +150 | °C               |
| Md               | Mounting torque (copper plate) M5 |                                                              | 2           | N•M              |
| Wt               | weight                            |                                                              | 21          | g                |

## Electrical characteristics

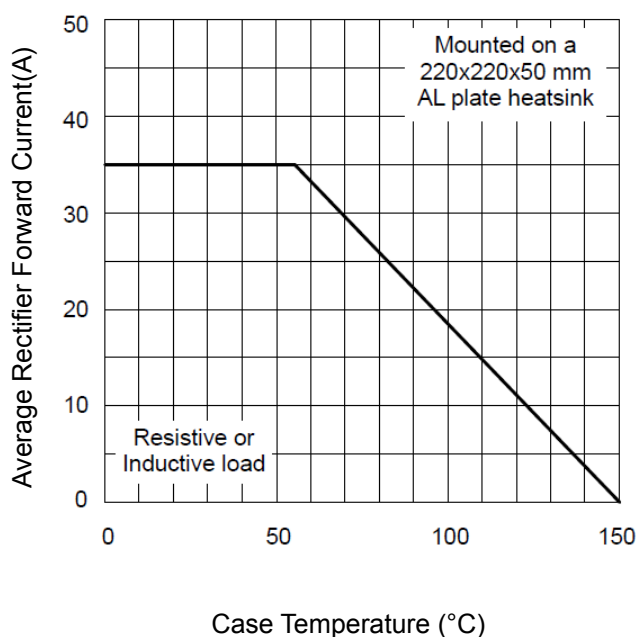
| Symbol   | Parameter                         | Test condition                               | Rating | Unit |
|----------|-----------------------------------|----------------------------------------------|--------|------|
| IRRM     | Peak reverse repetitive current   | VR=VRRM, sine half Tj=25°C                   | 5      | μA   |
|          |                                   | VR=VRRM, sine half Tj=150°C                  | 3      | mA   |
| VFM      | Peak forward voltage              | IFM =17.5A, Tj=25°C                          | 1.1    | V    |
| Rth(j-c) | Thermal impedance (junction-case) | Single-side heat dissipation, sine half wave | 1.4    | °C/W |

## Performance Curves

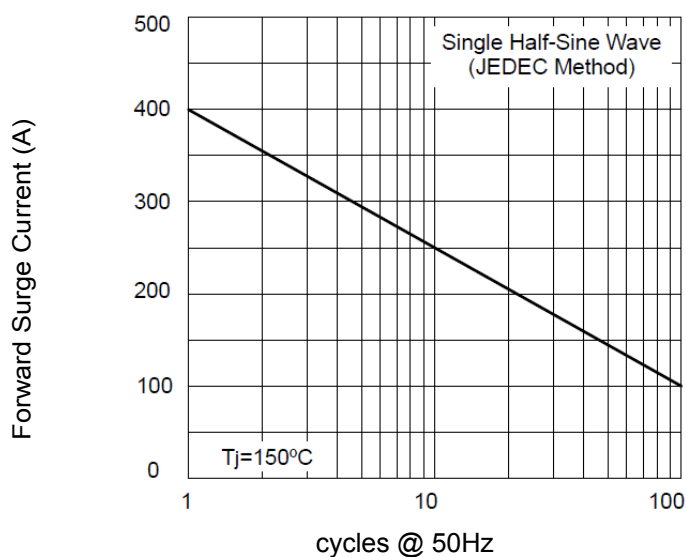
Forward curve



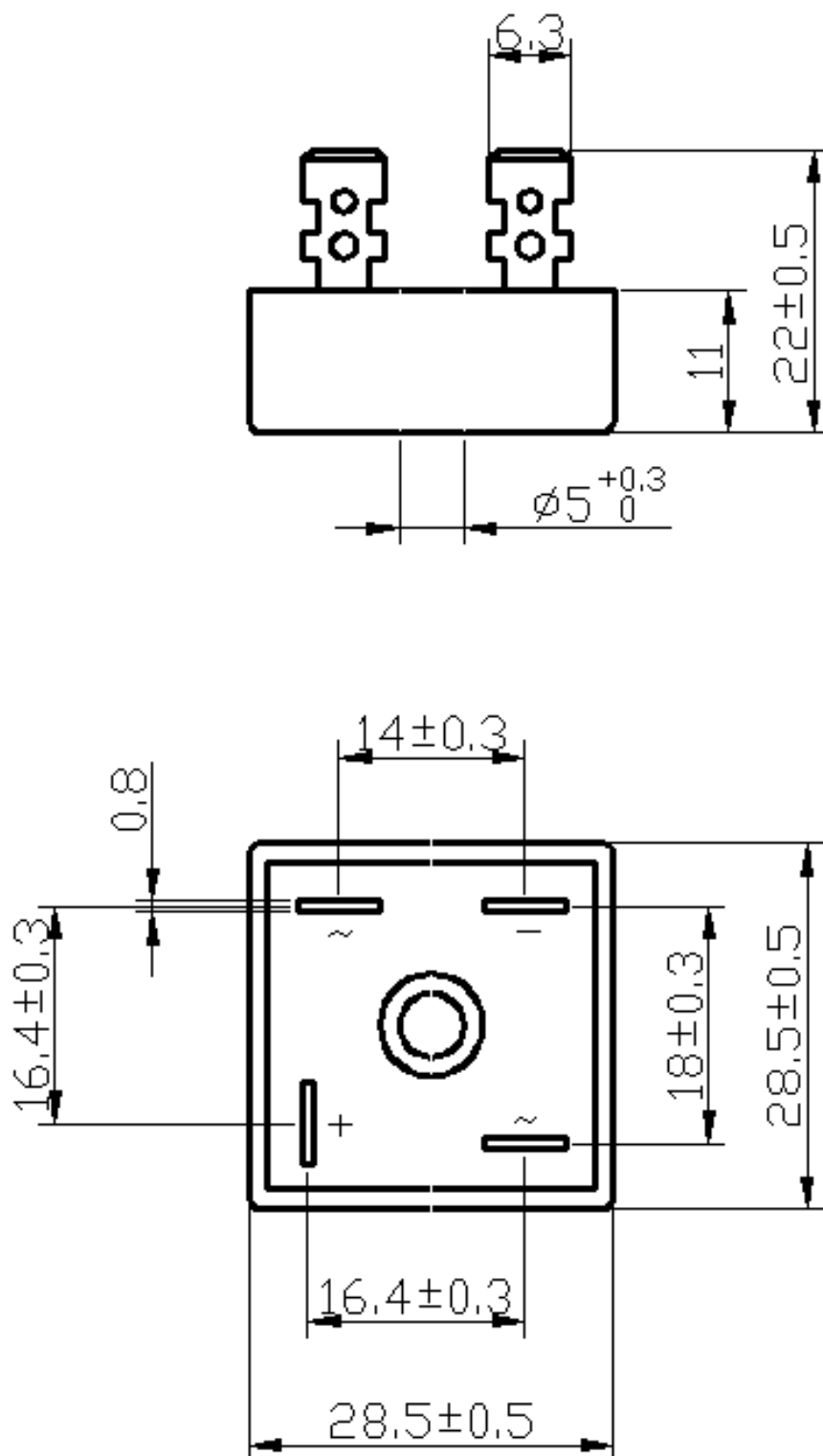
Case temperature and average forward current characteristic curve



Forward Surge current cycle number curve



Dimension

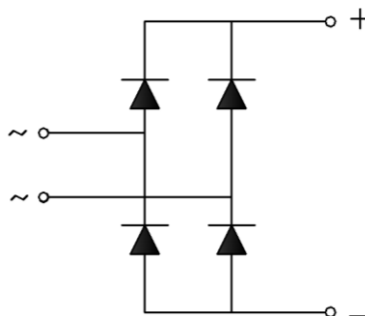


## Feature

- International standard package
- Low forward voltage drop
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## Application

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



## Maximum value

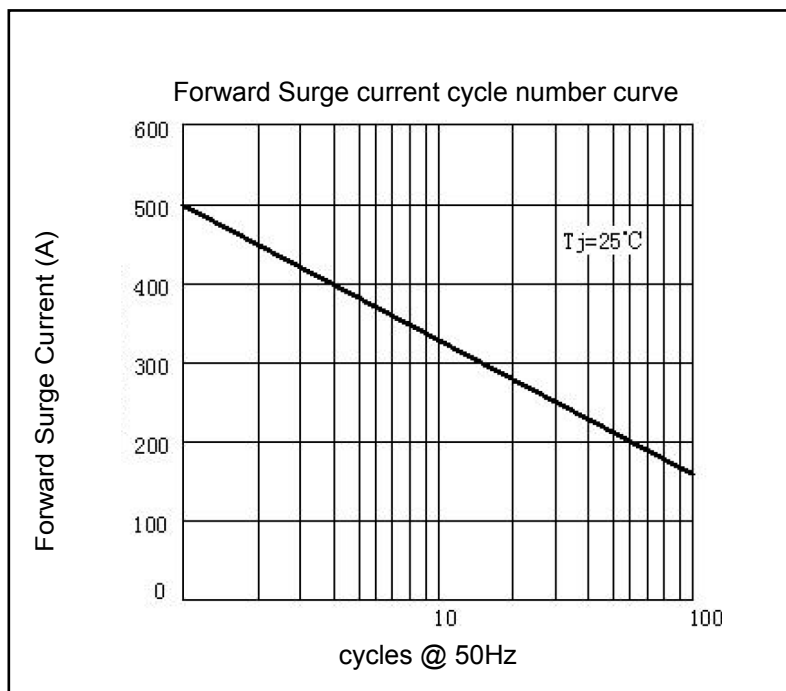
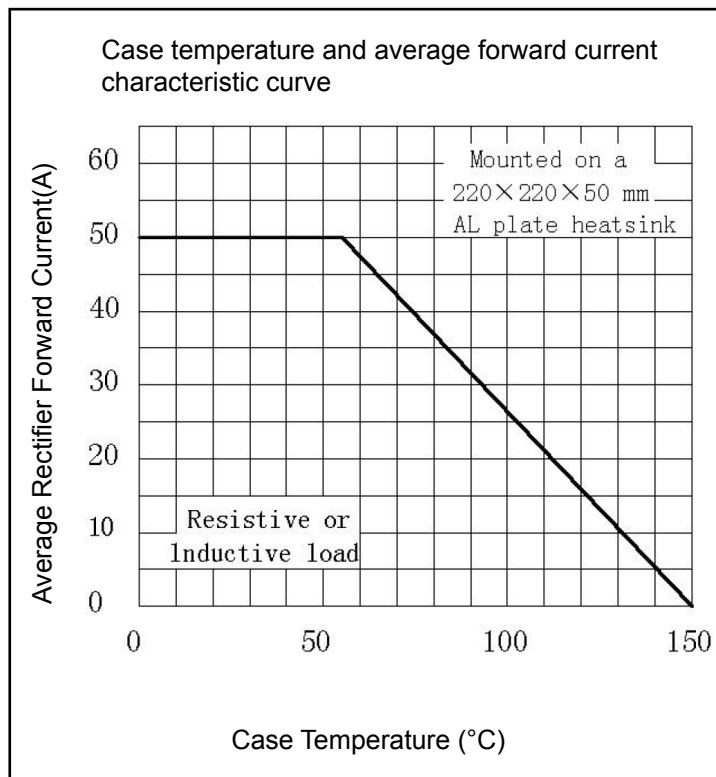
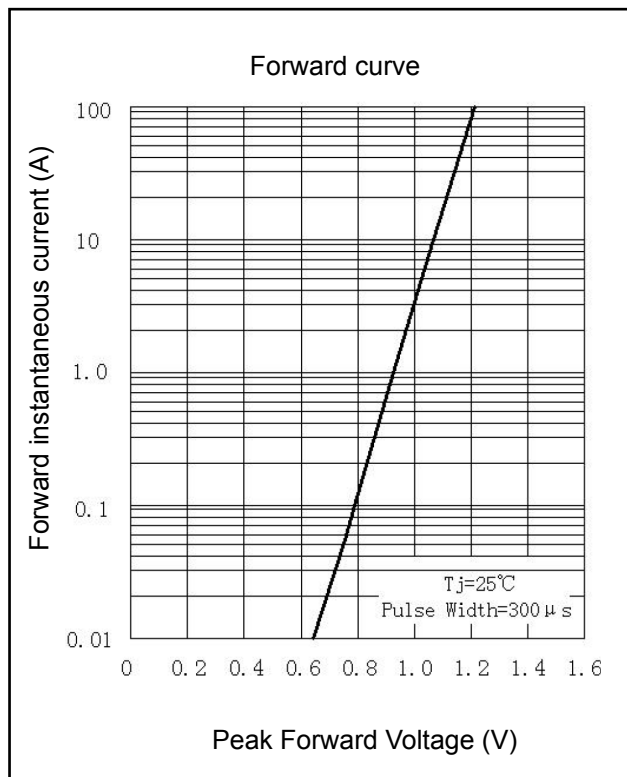
| Symbol | Parameter                           | Rating   |          |          | Unit |
|--------|-------------------------------------|----------|----------|----------|------|
|        |                                     | KBPC5002 | KBPC5006 | KBPC5010 |      |
| VRRM   | Peak reverse repetitive voltage     | 200      | 600      | 1000     | V    |
| VRSM   | Peak reverse non-repetitive voltage | 300      | 700      | 1100     | V    |

| Symbol           | Parameter                         | Test condition                                               | Rating      | Unit             |
|------------------|-----------------------------------|--------------------------------------------------------------|-------------|------------------|
| IF(AV)           | Mean on-state current             | 180° half sine wave 50Hz<br>One side heat radiation Tc:55° C | 50          | A                |
| IFSM             | Forward surge current             | t=10ms,50Hz,sin,Tjm                                          | 500         | A                |
| I <sup>2</sup> t | I <sup>2</sup> t value            | VR = 0.6VRRM, Tjm                                            | 1250        | A <sup>2</sup> S |
| VISO             | Isolation voltage                 | 50Hz, R.M.S, t=1min, liso:1mA(max)                           | 2000        | V                |
| Tj               | Operating junction temperature    |                                                              | -40 to +150 | °C               |
| Tjm              | Rated junction temperature        |                                                              | 150         | °C               |
| Tstg             | Storage temperature               |                                                              | -40 to +150 | °C               |
| Md               | Mounting torque (copper plate) M5 |                                                              | 2           | N•M              |
| Wt               | weight                            |                                                              | 21          | g                |

## Electrical characteristics

| Symbol   | Parameter                         | Test condition                               | Rating | Unit |
|----------|-----------------------------------|----------------------------------------------|--------|------|
| IRRM     | Peak reverse repetitive current   | VR=VRRM, sine half Tj=25°C                   | 5      | μA   |
|          |                                   | VR=VRRM, sine half Tj=150°C                  | 3      | mA   |
| VFM      | Peak forward voltage              | IFM =25A, Tj=25°C                            | 1.1    | V    |
| Rth(j-c) | Thermal impedance (junction-case) | Single-side heat dissipation, sine half wave | 1.5    | °C/W |

## Performance Curves



Dimension

