

### FEATURES

- Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- Metal silicon junction ,majority carrier conduction
- Guard ring for overvoltage protection
- Low forward voltage drop,High current capability
- High temperature soldering guaranteed:260°C/10 seconds at terminals
- Component in accordance to RoHS 2015/863/EU

HALOGEN  
FREE

### MECHANICAL DATA

- Case: ABS molded plastic body
- Terminals: Plated leads solderable per MIL-STD-750,method 2026
- Mounting Position: Any

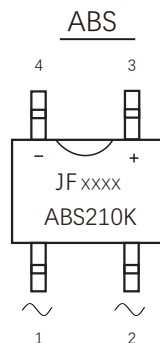
### TYPICAL APPLICATIONS

Used in low voltage high frequency rectification circuit for SMPS, lighting ballaster, adapter, charger, home appliances, office equipment, and telecommunication applications.

### MAXIMUM RATINGS

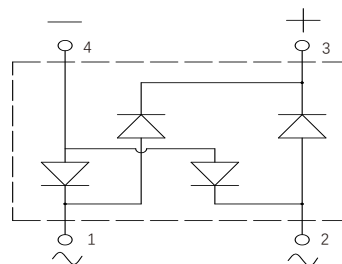
(Ratings at 25°C ambient temperature unless otherwise specified )

| Parameter  | Symbol      | Value      | Unit             |
|--|-------------|------------|------------------|
| Maximum repetitive peak reverse voltage                | $V_{RRM}$   | 100        | V                |
| Maximum average forward rectified current              | $I_{F(AV)}$ | 2.0        | A                |
| Peak forward surge current 8.3ms single hanf Sine-wave | $I_{FSM}$   | 50         | A                |
| Rating for fusing (t=8.3ms)                            | $I^2t$      | 10.375     | A <sup>2</sup> s |
| Operating junction temperature range                   | $T_J$       | -55 to+150 | °C               |
| Storage temperature range                              | $T_{stg}$   | -55 to+150 | °C               |



Marking:

JF:Logo  
xxxx:Date code  
ABS210K:Type  
+ -:Polarity



## ELECTRICAL CHARACTERISTICS (T<sub>J</sub>=25°C Unless otherwise noted)

| Parameter                             | Test Conditions       |                      | Symbol                            | Min. | Typ. | Max  | Unit |
|---------------------------------------|-----------------------|----------------------|-----------------------------------|------|------|------|------|
| Breakdown voltage<br>Blocking voltage | I <sub>R</sub> =200μA |                      | V <sub>BR</sub><br>V <sub>R</sub> | 100  | -    | -    | V    |
| Instantaneous forward voltage         | T <sub>J</sub> =25°C  | I <sub>F</sub> =0.5A | V <sub>F</sub> 1)                 | -    | 0.62 | -    | V    |
|                                       |                       | I <sub>F</sub> =1.0A |                                   | -    | 0.71 | -    |      |
|                                       |                       | I <sub>F</sub> =2.0A |                                   | -    | 0.78 | 0.85 |      |
|                                       | T <sub>J</sub> =125°C | I <sub>F</sub> =0.5A |                                   | -    | 0.50 | -    |      |
|                                       |                       | I <sub>F</sub> =1.0A |                                   | -    | 0.55 | -    |      |
|                                       |                       | I <sub>F</sub> =2.0A |                                   | -    | 0.62 | -    |      |
| Reverse current                       | T <sub>J</sub> =25°C  | V <sub>R</sub> =100V | I <sub>R</sub> 2)                 | -    | -    | 5.0  | μA   |
|                                       | T <sub>J</sub> =125°C |                      |                                   | -    | -    | 2.5  | mA   |
| Junction capacitance                  | 4V,1MHz               |                      | C <sub>J</sub>                    | -    | 60   | -    | pF   |

Notes: 1.Pulse test: 300μs pulse width,1% duty cycle

2.Pulse test: pulse width≤40ms

## THERMAL CHARACTERISTICS

| Parameter                                | Symbol           | ABS | Unit |
|--|------------------|-----|------|
| Typical thermal resistance <sup>3)</sup> | R <sub>θJA</sub> | 62  | °C/W |
|  | R <sub>θJC</sub> | 13  |      |

Notes3: Device mounted on FR-4 substrate, 1oz/Ft2, single-sided, PC boards with 2mm\*2mm copper pad.

## AVAILABLE PACK INFORMATION

| Product code | Pack | Reel Size (mm ) | Quantity (pcs/reel) | Quantity (reel/box) | Quantity (box/carton) | Quantity (K/carton) |
|--------------|------|-----------------|---------------------|---------------------|-----------------------|---------------------|
| ABS210K-ABS  | T/R  | Φ330            | 3000                | 2                   | 8                     | 48                  |

FIG.1-FORWARD CURRENT DERATING CURVE

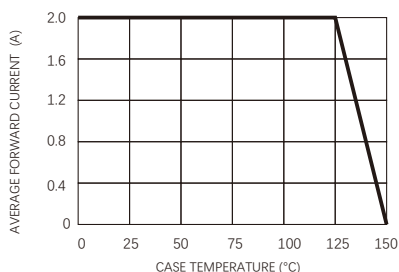


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

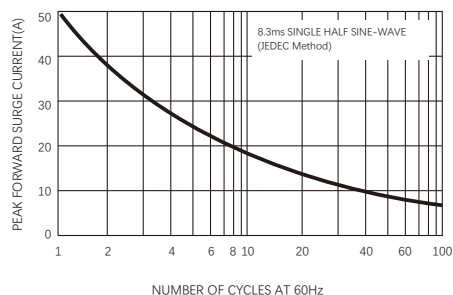


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

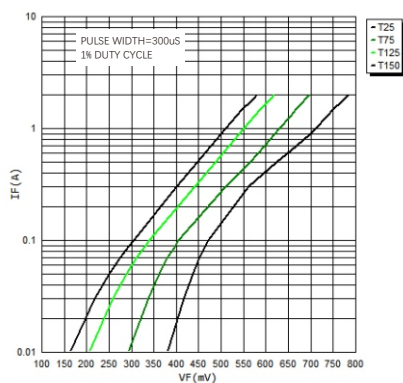


FIG.4-TYPICAL REVERSE CHARACTERISTICS

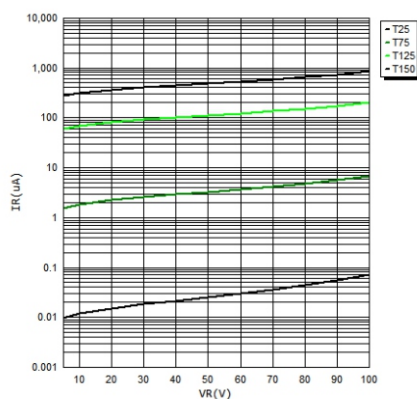
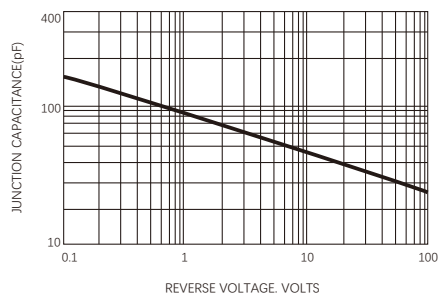
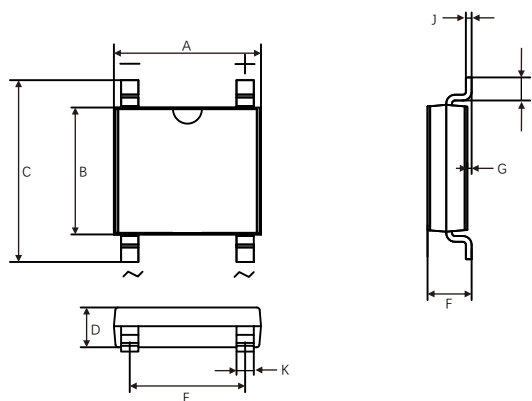


FIG.5-TYPICAL JUNCTION CAPACITANCE



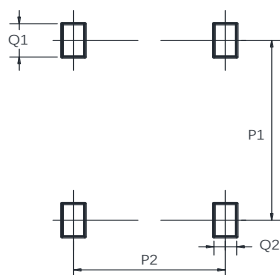
## PACKAGE OUTLINE DIMENSIONS

### ABS



| UNIT:mm |      |      |
|---------|------|------|
| DIM     | MIN  | MAX  |
| A       | 4.80 | 5.40 |
| B       | 4.20 | 4.60 |
| C       | 6.00 | 6.80 |
| D       | 1.20 | 1.50 |
| E       | 3.80 | 4.40 |
| F       | 1.22 | 1.60 |
| G       | 0.05 | 0.15 |
| I       | 0.30 | 0.80 |
| J       | 0.10 | 0.30 |
| K       | 0.50 | 0.85 |

## Suggested solder pad layout



| Dim | Min  |
|-----|------|
| P1  | 5.72 |
| P2  | 4.00 |
| Q1  | 1.00 |
| Q2  | 0.90 |

Dimensions in millimeters

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