

**JK3045-P150**

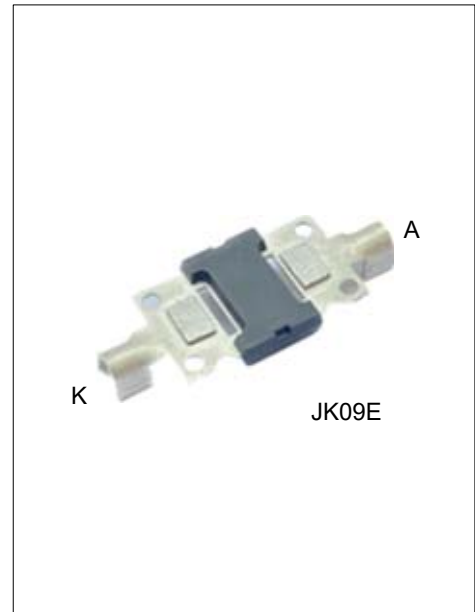
Preliminary

**DIODE****SCHOTTKY BYPASS DIODE  
MODULE****■ FEATURES**

- \* High frequency operation
- \* Low forward voltage drop
- \* High purity, high temperature epoxy encapsulation for enhanced mechanical strength and moisture resistance
- \* Guard ring for enhanced ruggedness and long term reliability

**■ SYMBOL**

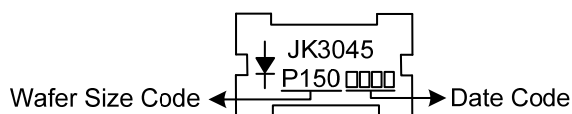
K —|&lt;— A

**■ ORDERING INFORMATION**

| Ordering Number    |                    | Package | Pin Assignment |   | Packing |
|--------------------|--------------------|---------|----------------|---|---------|
| Lead Free          | Halogen Free       |         | 1              | 2 |         |
| JK3045L-P150-JK2-T | JK3045G-P150-JK2-T | JK09E   | K              | A | Tube    |

Note: Pin Assignment: A: Anode K: Cathode

|                    |                     |                                                 |
|--------------------|---------------------|-------------------------------------------------|
| JK3045G-P150-JK2-T | (1) Packing Type    | (1) T: Tube                                     |
|                    | (2) Package Type    | (2) JK2: JK09E                                  |
|                    | (3) Wafer Size Code | (3) P150                                        |
|                    | (4) Green Package   | (4) G: Halogen Free and Lead Free, L: Lead Free |

**■ MARKING**

# ■ **ABSOLUTE MAXIMUM RATINGS** ( $T_A=25^{\circ}\text{C}$ unless otherwise specified)

Single phase, half wave, 60Hz, resistive or inductive load.

For capacitance load, derate current by 20%.

| PARAMETER                                                                   | SYMBOL    | RATINGS    | UNIT               |
|-----------------------------------------------------------------------------|-----------|------------|--------------------|
| DC Blocking Voltage                                                         | $V_{RM}$  | 45         | V                  |
| Working Peak Reverse Voltage                                                | $V_{RWM}$ | 45         | V                  |
| Peak Repetitive Reverse Voltage                                             | $V_{RRM}$ | 45         | V                  |
| Average Rectified Output Current<br>@ 60Hz Half Sine-Wave, R-Load           | $I_O$     | 30         | A                  |
| Non-Repetitive Peak Forward Surge Current<br>@ 60Hz Half Sine-Wave, 1 Cycle | $I_{FSM}$ | 350        | A                  |
| Operating Junction Temperature                                              | $T_J$     | -55 ~ +150 | $^{\circ}\text{C}$ |
| Storage Temperature                                                         | $T_{STG}$ | -55 ~ +150 | $^{\circ}\text{C}$ |

Note: Absolute maximum ratings are those values beyond which the device could be permanently damaged.

Absolute maximum ratings are stress ratings only and functional device operation is not implied.

# ■ **THERMAL CHARACTERISTICS (PER LEG)**

| PARAMETER                  | SYMBOL        | RATINGS | UNIT                        |
|----------------------------|---------------|---------|-----------------------------|
| Typical Thermal Resistance | $\theta_{JC}$ | 1.0     | $^{\circ}\text{C}/\text{W}$ |

# ■ **ELECTRICAL CHARACTERISTICS (PER LEG)** ( $T_A=25^{\circ}\text{C}$ unless otherwise specified.)

| PARAMETER                                                                            | SYMBOL      | TEST CONDITIONS                           | MIN | TYP | MAX  | UNIT |
|--------------------------------------------------------------------------------------|-------------|-------------------------------------------|-----|-----|------|------|
| Reverse Breakdown Voltage                                                            | $V_{(BR)R}$ | $I_R=0.50\text{mA}$                       | 45  |     |      | V    |
| Maximum Instantaneous Forward Voltage<br>Drop per Diode ( $T_J=25^{\circ}\text{C}$ ) | $V_F$       | $I_F=30\text{A}$                          |     |     | 0.55 | V    |
| Maximum DC Reverse Current at Rated DC<br>Blocking Voltage Per Diode                 | $I_{RRM}$   | $V_R=45\text{V}, T_J=25^{\circ}\text{C}$  |     |     | 0.08 | mA   |
|                                                                                      |             | $V_R=45\text{V}, T_J=100^{\circ}\text{C}$ |     |     | 7.0  | mA   |
|                                                                                      |             | $V_R=45\text{V}, T_J=125^{\circ}\text{C}$ |     |     | 30   | mA   |

Note: Pulse Test: Pulse width  $\leq 300\mu\text{s}$ , Duty cycle  $\leq 2\%$ .

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