

# Standard power diode

SK8D

## FEATURES

- Low Forward Voltage Drop
- High inrush current capability
- Extremely low reverse leakage
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

## APPLICATIONS

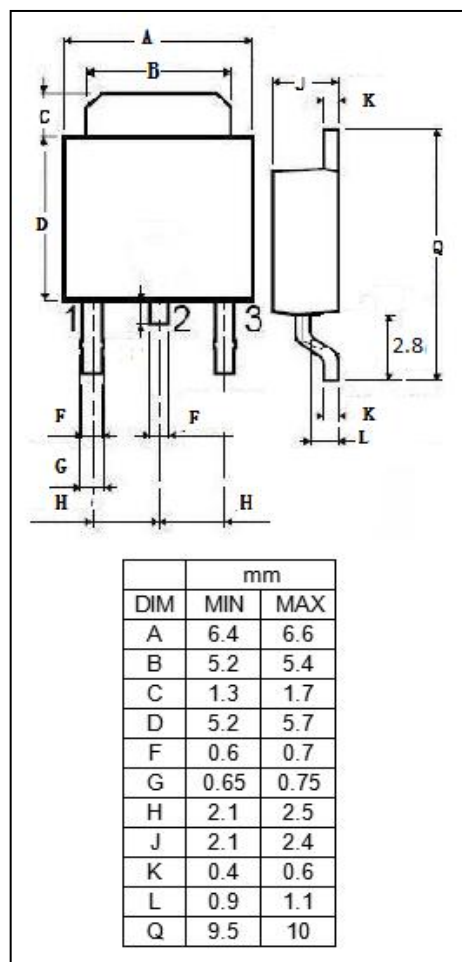
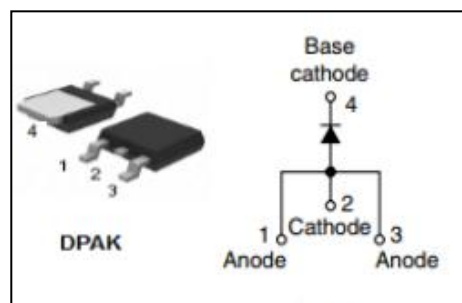
- Input rectifier
- Bypass diode in PFC
- Snubber circuit

## ABSOLUTE MAXIMUM RATINGS(T<sub>a</sub>=25°C)

| SYMBOL   | PARAMETER  | VALUE   | UNIT |
|--|--|---------|------|
| V <sub>RRM</sub><br>V <sub>RWM</sub><br>V <sub>R</sub> | Peak Repetitive Reverse Voltage<br>Working Peak Reverse Voltage<br>DC Blocking Voltage | 800     | V    |
| I <sub>F(AV)</sub>                                     | Average Forward Current  | 8       | A    |
| I <sub>FSM</sub>                                       | Nonrepetitive Peak Surge Current   | 150     | A    |
| T <sub>J</sub>   | Junction Temperature   | -55~150 | °C   |
| T <sub>stg</sub>                                       | Storage Temperature Range  | -55~150 | °C   |

## HERMAL CHARACTERISTICS

| SYMBOL               | PARAMETER                            | MAX | UNIT |
|----------------------|--------------------------------------|-----|------|
| R <sub>th(j-c)</sub> | Thermal Resistance, Junction to Case | 2.0 | °C/W |



**Standard power diode****SK8D****ELECTRICAL CHARACTERISTICS**(T<sub>a</sub>=25°C) (Pulse Test: Pulse Width=300 μs, Duty Cycle≤2%)

| SYMBOL         | PARAMETER                     | CONDITIONS  | MAX         | UNIT |
|----------------|-------------------------------|---|-------------|------|
| V <sub>F</sub> | Instantaneous Forward Voltage | I <sub>F</sub> = 8A ;T <sub>J</sub> =25°C<br>I <sub>F</sub> = 8A ;T <sub>J</sub> =150°C     | 1.8<br>1.8  | V    |
| I <sub>R</sub> | Instantaneous Reverse Current | V <sub>R</sub> = 800V; T <sub>J</sub> =25°C<br>V <sub>R</sub> = 800V; T <sub>J</sub> =150°C | 0.05<br>0.5 | mA   |

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