

## Schottky Barrier Rectifier

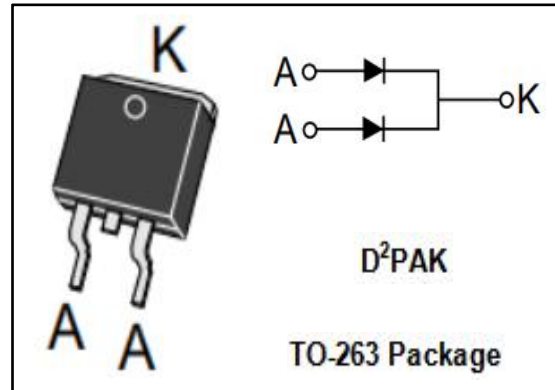
## STPS20150CG

## FEATURES

- Multilayer Metal -Silicon Potential Structure.
- Low Leakage Current.
- High Current Capability, High Efficiency.
- High Junction Temperature Capability.
- Minimum Lot-to-Lot variations for robust device performance and reliable operation.

## MECHANICAL CHARACTERISTICS

- Low Voltage High Frequency Switching Power Supply.
- Low Voltage High Frequency Invers Circuit.
- Low Voltage Continued Circuit and Protection Circuit.

ABSOLUTE MAXIMUM RATINGS( $T_a=25^{\circ}\text{C}$ )

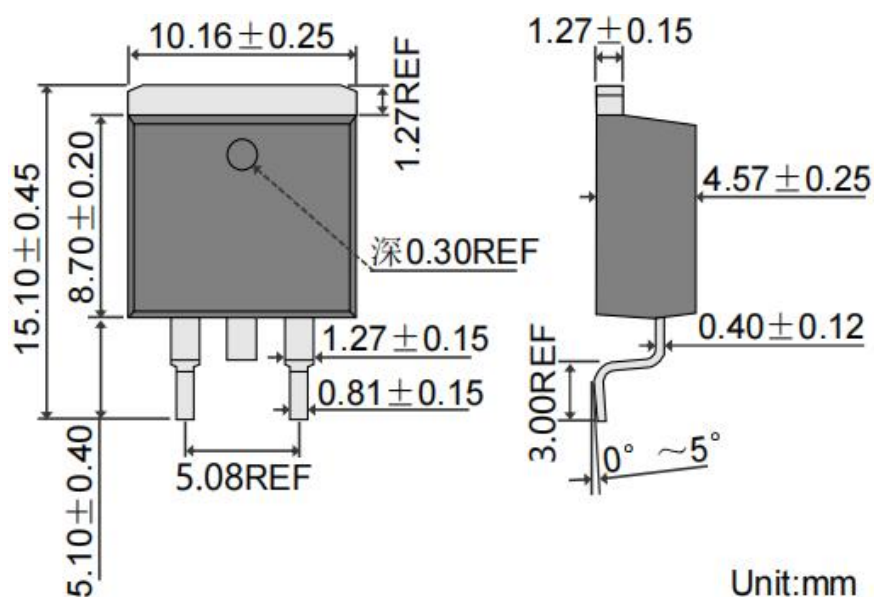
| SYMBOL                          | PARAMETER   | VALUE    | UNIT               |
|---------------------------------|---|----------|--------------------|
| $V_{RRM}$<br>$V_{RMS}$<br>$V_R$ | Peak Repetitive Reverse Voltage<br>RMS Voltage<br>DC Blocking Voltage                                 | 150      | V                  |
| $I_{F(AV)}$                     | Average Rectified Forward Current (Per Leg)<br>(Total)  | 10<br>20 | A                  |
| $I_{FSM}$                       | Nonrepetitive Peak Surge Current<br>8.3ms single half sine-wave superimposed on rated load conditions | 180      | A                  |
| $P_{ARM}$                       | Repetitive peak avalanche power $t_p=10\mu\text{s}$ , $T_j=125^{\circ}\text{C}$                       | 480      | W                  |
| $T_j$                           | Junction Temperature  | -65~175  | $^{\circ}\text{C}$ |
| $T_{stg}$                       | Storage Temperature Range   | -65~175  | $^{\circ}\text{C}$ |

## THERMAL CHARACTERISTICS

| SYMBOL        | PARAMETER                            | MAX | UNIT                        |
|---------------|--------------------------------------|-----|-----------------------------|
| $R_{th\ j-c}$ | Thermal Resistance, Junction to Case | 2.2 | $^{\circ}\text{C}/\text{W}$ |

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**ELECTRICAL CHARACTERISTICS** (Pulse Test: Pulse Width  $\leq 300 \mu s$ , Duty Cycle  $\leq 1\%$ )

| SYMBOL | PARAMETER                             | CONDITIONS   | MAX        | UNIT    |
|--------|---------------------------------------|--|------------|---------|
| $V_F$  | Maximum Instantaneous Forward Voltage | $I_F = 10A ; T_C = 25^\circ C$<br>$I_F = 20A ; T_C = 25^\circ C$ | 0.9<br>1.0 | V       |
| $I_R$  | Maximum Instantaneous Reverse Current | Rated DC Voltage, $T_C = 25^\circ C$                             | 5.0        | $\mu A$ |


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