

## Descriptions

Schottky Barrier Diode in a TO-252 Plastic Package.

## Features

High Forward Surge Capability, Ultra Low Forward Voltage Drop, Excellent High Temperature Stability.

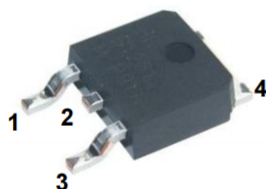
## Applications

For use in low voltage, high frequency inverters, free wheeling, and polarity protection applications.

## Ordering Information

Shipping Qty:2500pcs Tape& Reel

TO-252



PIN1 : Anode  
 PIN 2,4 : Cathode  
 PIN 3 : Anode

Equivalent Circuit



## Absolute Maximum Ratings (T<sub>A</sub>=25°C unless otherwise noted)

| Parameter                                                | Symbol             | Value | Unit |
|----------------------------------------------------------|--------------------|-------|------|
| Peak Repetitive Reverse Voltage                          | V <sub>RRM</sub>   | 200   | V    |
| RMS Reverse Voltage                                      | V <sub>RMS</sub>   | 140   | V    |
| DC Blocking Voltage                                      | V <sub>DC</sub>    | 200   | V    |
| Maximum Average Forward Output Current                   | I <sub>F(AV)</sub> | 20    | A    |
| Peak Forward Surge Current (8.3ms single half sine-wave) | I <sub>FSM</sub>   | 150   | A    |

## Thermal Characteristics (T<sub>A</sub>=25°C unless otherwise noted )

| Parameter                                | Symbol           | Value      | Unit |
|------------------------------------------|------------------|------------|------|
| Thermal Resistance (Junction-to-Air) *1  | R <sub>θJA</sub> | 36         | °C/W |
| Thermal Resistance (Junction-to-Case) *1 | R <sub>θJC</sub> | 14         | °C/W |
| Thermal Resistance (Junction-to-Lead) *1 | R <sub>θJL</sub> | 6          | °C/W |
| Operating junction Temperature           | T <sub>J</sub>   | -55 ~ +150 | °C   |
| Storage Temperature Range                | T <sub>STG</sub> | -55 ~ +150 | °C   |

## Electrical Characteristics ( $T_A=25^\circ\text{C}$ unless otherwise noted)

| Parameter                    | Symbol | Test Condition                                            | Min. | Typ. | Max. | Unit |
|------------------------------|--------|-----------------------------------------------------------|------|------|------|------|
| Forward Voltage              | $V_F$  | $I_F = 10\text{A}$ , $T_A = 25^\circ\text{C}$             | -    | -    | 0.95 | V    |
|                              |        | $I_F = 10\text{A}$ , $T_A = 125^\circ\text{C}$            | -    | -    | 0.85 | V    |
| Maximum Peak Reverse Current | $I_R$  | $V_R = \text{Rated } V_{RRM}$ , $T_A = 25^\circ\text{C}$  | -    | -    | 0.1  | mA   |
|                              |        | $V_R = \text{Rated } V_{RRM}$ , $T_A = 125^\circ\text{C}$ | -    | -    | 50   | mA   |

## Typical Electrical Characteristic Curves

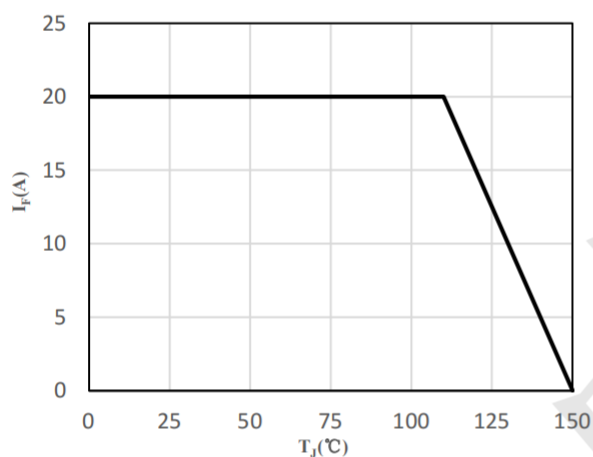


Fig 1 Forward Derating Curve

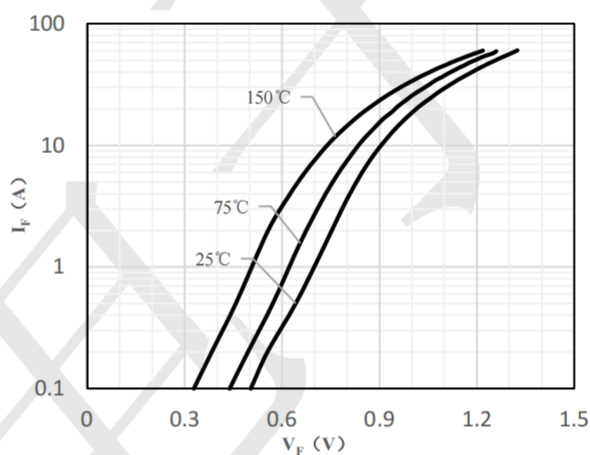


Fig 2 Typical Forward Characteristic

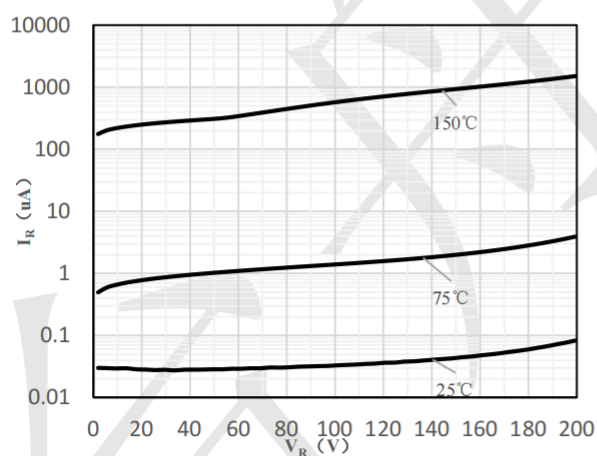


Fig 3 Typical Reverse Characteristic

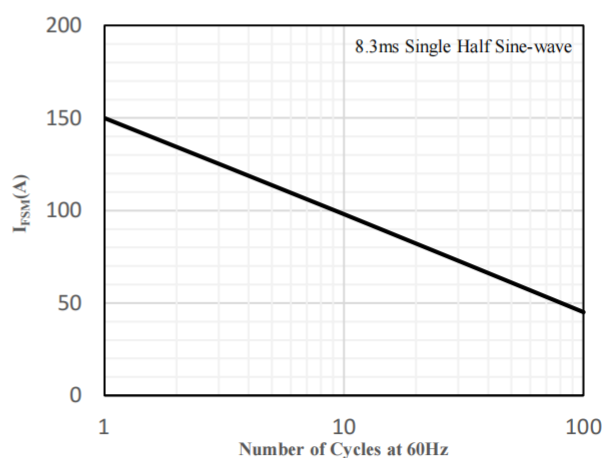
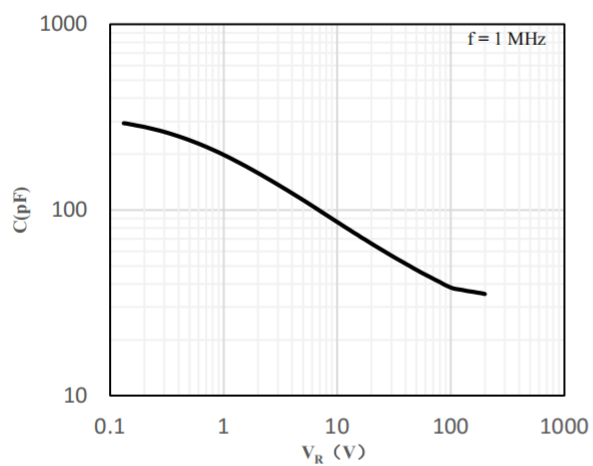


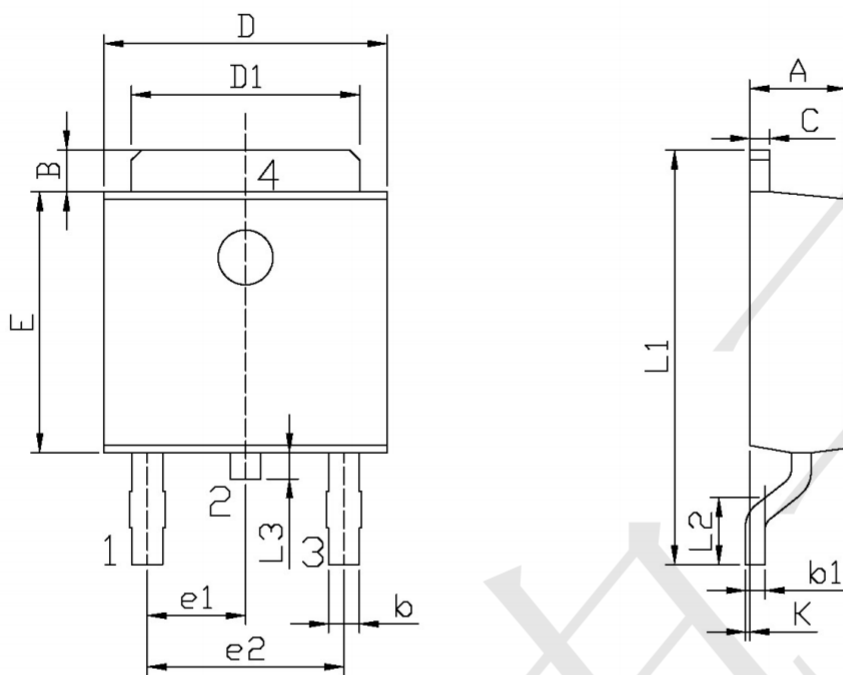
Fig 4 Maximum Non-Repetitive Peak Surge Current

## Typical Electrical Characteristic Curves



**Fig 5 Typical Junction Capacitance**

**Outline Drawing - TO-252 (unit:mm)**



单位: mm

| Symbol | Dimensions In Millimeters |      | Symbol | Dimensions In Millimeters |      |
|--------|---------------------------|------|--------|---------------------------|------|
|        | Min                       | Max  |        | Min                       | Max  |
| A      | 2.20                      | 2.40 | E      | 5.95                      | 6.25 |
| B      | 0.95                      | 1.25 | e1     | 2.24                      | 2.34 |
| b      | 0.50                      | 0.70 | e2     | 4.43                      | 4.73 |
| b1     | 0.45                      | 0.55 | L1     | 9.45                      | 9.95 |
| C      | 0.45                      | 0.55 | L2     | 1.25                      | 1.75 |
| D      | 6.45                      | 6.75 | L3     | 0.60                      | 0.90 |
| D1     | 5.10                      | 5.50 | K      | 0.00                      | 0.10 |