

SCHOTTKY BARRIER DIODE
Features

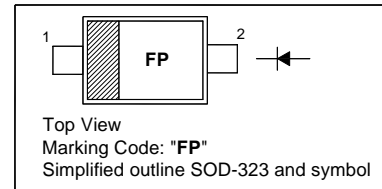
- Ultra high-speed switching
- Very low forward voltage
- Very small SMD plastic package

Applications

- Ultra high-speed switching
- Voltage clamping
- Protection circuits

PINNING

| PIN | DESCRIPTION |
|-----|-------------|
| 1 | Cathode |
| 2 | Anode |


Absolute Maximum Ratings (T_a = 25 °C)

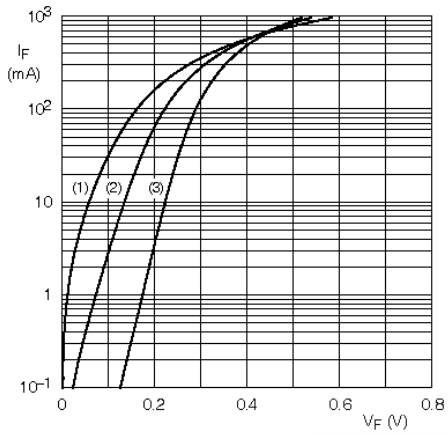
| Parameter | Symbol | Value | Unit |
|---|------------------|--|------|
| Reverse Voltage | V _R | 20 | V |
| Continuous Forward Current | I _F | 1 | A |
| Non-repetitive Peak Forward Current (t = 8.3 ms Half Sine Wave, JEDEC method) | I _{FSM} | 5 | A |
| Junction Temperature | T _J | 125 | °C |
| Operating Ambient Temperature Range | T _{op} | - 65 to + 125 | °C |
| Storage Temperature Range | T _{stg} | - 65 to + 150 | °C |
| Thermal Resistance from Junction to Ambient | R _{θJA} | 220 ¹⁾ 180 ²⁾ | K/W |

¹⁾ Mounted on P.C.B. 10 X 10 mm² Cu

²⁾ Mounted on P.C.B. 40 X 40 mm² Cu

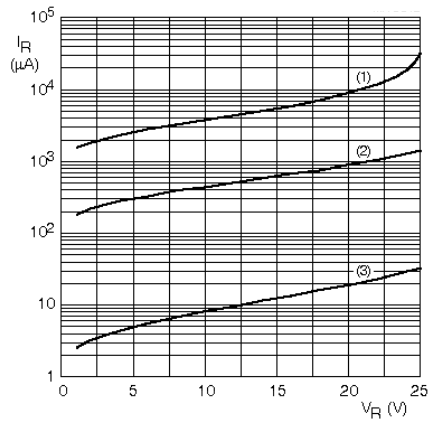
Characteristics at T_a = 25 °C

| Parameter | Symbol | Max. | Unit |
|---|----------------|----------------------|------|
| Forward Voltage at I _F = 10 mA at I _F = 100 mA at I _F = 1 A | V _F | 0.27 0.35 0.65 | V |
| Reverse Current at V _R = 5 V at V _R = 8 V at V _R = 15 V | I _R | 10 20 50 | μA |
| Diode Capacitance at V _R = 5 V, f = 1 MHz | C _d | 25 | pF |



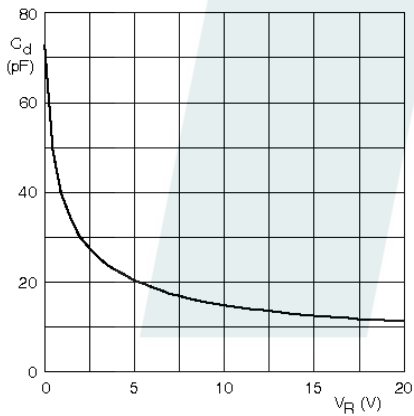
- (1) $T_{amb} = 85\text{ }^{\circ}\text{C}$.
- (2) $T_{amb} = 25\text{ }^{\circ}\text{C}$.
- (3) $T_{amb} = -40\text{ }^{\circ}\text{C}$.

Forward current as a function of forward voltage; typical values.



- (1) $T_{amb} = 125\text{ }^{\circ}\text{C}$.
- (2) $T_{amb} = 85\text{ }^{\circ}\text{C}$.
- (3) $T_{amb} = 25\text{ }^{\circ}\text{C}$.

Reverse current as a function of reverse voltage; typical values.



$T_{amb} = 25\text{ }^{\circ}\text{C}$; $f = 1\text{ MHz}$.

Diode capacitance as a function of reverse voltage; typical values.

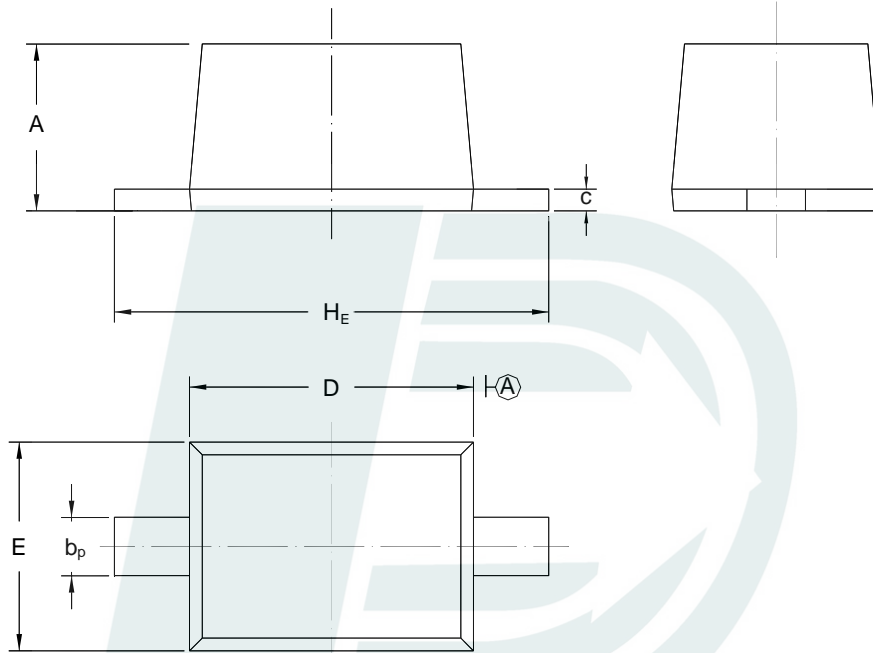
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PACKAGE OUTLINE

Plastic surface mounted package; 2 leads

SOD-323



| UNIT | A | b _p | C | D | E | H _E |
|------|--------------|----------------|--------------|--------------|--------------|----------------|
| mm | 1.10 0.80 | 0.40 0.25 | 0.15 0.10 | 1.80 1.60 | 1.35 1.15 | 2.80 2.30 |