

RoHS Compliant Product  
A suffix of "-C" specifies halogen & lead-free

## FEATURES

- Low current rectifier schottky diode
- Low voltage, low inductance
- For power supply

SOD-323



## MECHANICAL DATA

- Case: Molded plastic, JEDEC SOD-323
- Terminal : Solder plated, solderable per MIL-STD-750,Method 2026
- Polarity : Indicated by cathode band
- Mounting Position : Any

## MARKING

JV  $\sphericalangle$

JV

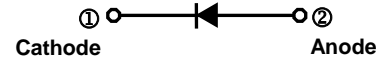
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## PACKAGE INFORMATION

| Package | MPQ | Leader Size |
|---------|-----|-------------|
| SOD-323 | 3K  | 7 inch      |

## ORDER INFORMATION

| Part Number  | Type                            |
|--------------|---------------------------------|
| SCS501V-40-C | Lead (Pb)-free and Halogen-free |



## ABSOLUTE MAXIMUM RATINGS (T<sub>A</sub>=25°C unless otherwise specified)

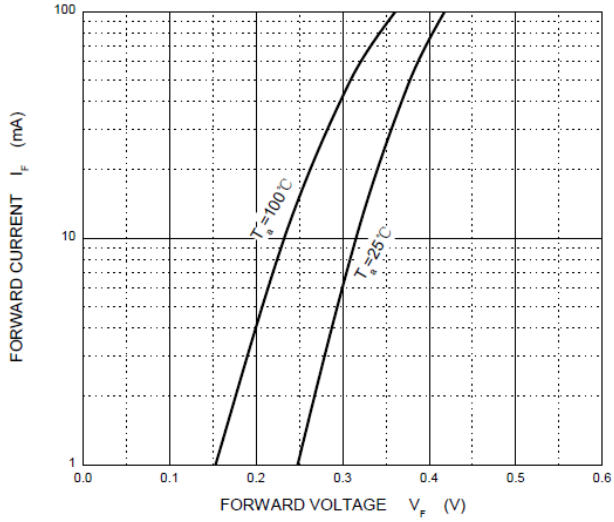
| Parameter  | Symbol           | Ratings | Unit |
|--|------------------|---------|------|
| Peak Reverse Voltage                               | V <sub>RRM</sub> | 45      | V    |
| DC Reverse Voltage                                 | V <sub>R</sub>   | 40      |      |
| Mean Rectifying Current                            | I <sub>O</sub>   | 0.1     | A    |
| Non-Repetitive Peak Forward Surge Current @t=8.3ms | I <sub>FSM</sub> | 1       | A    |
| Power Dissipation                                  | P <sub>D</sub>   | 200     | mW   |
| Thermal Resistance Junction-Ambient                | R <sub>θJA</sub> | 500     | °C/W |
| Operating Junction Temperature                     | T <sub>J</sub>   | -40~125 | °C   |
| Storage Temperature Range                          | T <sub>STG</sub> | -55~125 |      |

## ELECTRICAL CHARACTERISTICS (T<sub>A</sub>=25°C unless otherwise specified)

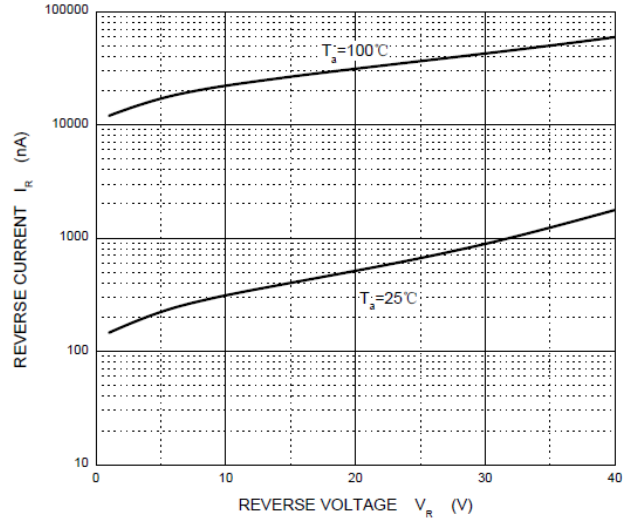
| Parameters              | Symbol         | Min. | Typ. | Max. | Unit | Test Conditions             |
|-------------------------|----------------|------|------|------|------|-----------------------------|
| Forward Voltage         | V <sub>F</sub> | -    | -    | 0.55 | V    | I <sub>F</sub> =100mA       |
|                         |                | -    | -    | 0.34 |      | I <sub>F</sub> =10mA        |
| Reverse Leakage Current | I <sub>R</sub> | -    | -    | 30   | μA   | V <sub>R</sub> =10V         |
| Total Capacitance       | C <sub>T</sub> | -    | 6    | -    | pF   | V <sub>R</sub> =10V, f=1MHz |

**RATINGS AND CHARACTERISTIC CURVES**

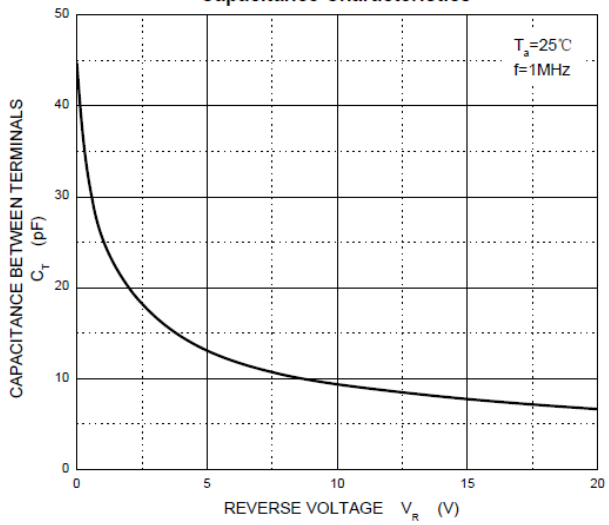
**Forward Characteristics**



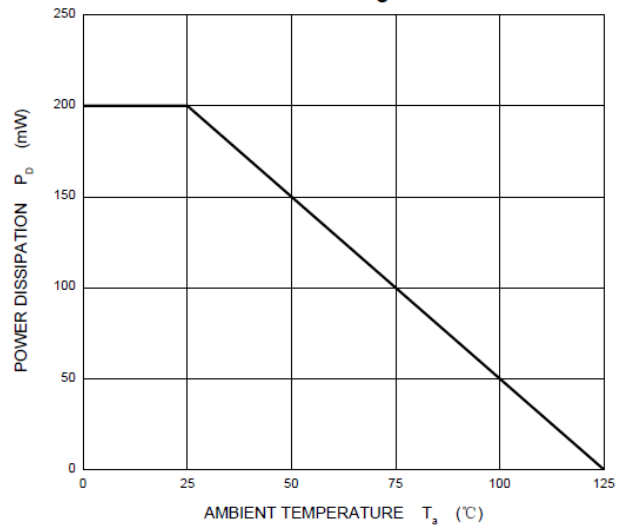
**Reverse Characteristics**



**Capacitance Characteristics**

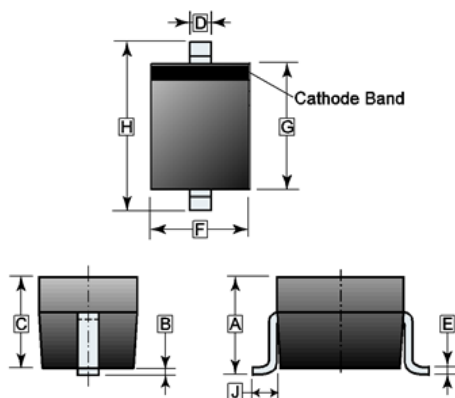


**Power Derating Curve**



**PACKAGE OUTLINE DIMENSIONS**

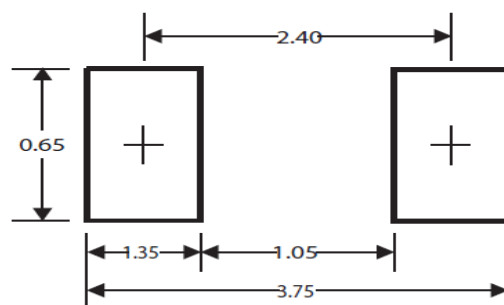
SOD-323



| REF. | Millimeter |      |
|------|------------|------|
|      | Min.       | Max. |
| A    | 1.05 REF.  |      |
| B    | 0.07 REF.  |      |
| C    | 0.80       | 1.10 |
| D    | 0.25       | 0.40 |
| E    | 0.05       | 0.25 |
| F    | 1.10       | 1.50 |
| G    | 1.50       | 1.95 |
| H    | 2.30       | 2.80 |
| J    | 0.475 REF. |      |

**MOUNTING PAD LAYOUT**

SOD-323



\*Dimensions in millimeters