

High-speed switching diode

Features

1. Small surface mounting type
2. High reliability
3. High forward current capability



Applications

High speed switch and general purpose use in computer and industrial applications

Construction

Silicon epitaxial planar

Absolute Maximum Ratings

$T_j=25^\circ\text{C}$

| Parameter | Test Conditions | Type | Symbol | Value | Unit |
|---------------------------------|---------------------|------|-----------|----------|------|
| Repetitive peak reverse voltage | | | V_{RRM} | 50 | V |
| Reverse voltage | | | V_R | 40 | V |
| Peak forward surge current | $t_p=1\mu\text{ s}$ | | I_{FSM} | 4 | A |
| Forward current | | | I_F | 600 | mA |
| Average forward current | $V_R=0$ | | I_{FAV} | 300 | mA |
| Power dissipation | | | P_V | 500 | mW |
| Junction temperature | | | T_j | 175 | ? |
| Storage temperature range | | | T_{stg} | -65~+175 | ? |

Maximum Thermal Resistance

$T_j=25^\circ\text{C}$

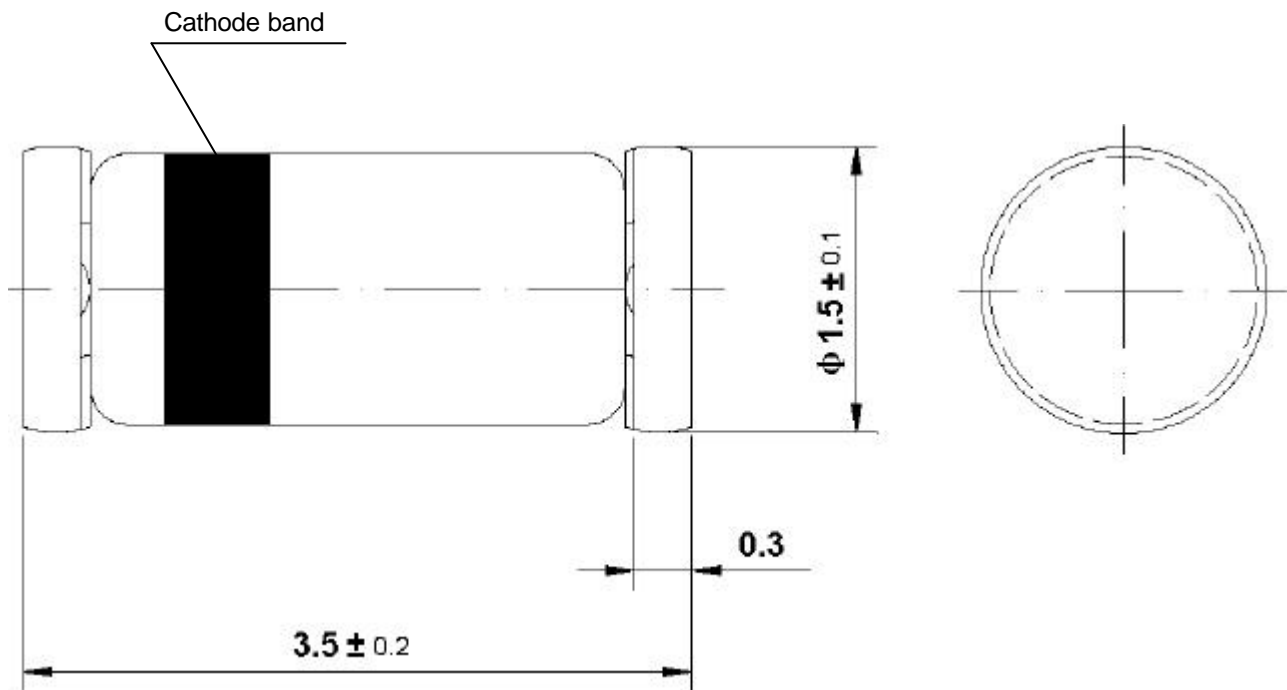
| Parameter | Test Conditions | Symbol | Value | Unit |
|------------------|-------------------------------|------------|-------|------|
| Junction ambient | on PC board 50mm× 50mm× 1.6mm | R_{thJA} | 500 | K/W |

Electrical Characteristics

T_j=25?

| Parameter | Test Conditions | Type | Symbol | Min | Typ | Max | Unit |
|-----------------------|--|------|-----------------|------|-----|------|------|
| Forward voltage | I _F =1mA | | V _F | 0.54 | | 0.62 | V |
| | I _F =10mA | | V _F | 0.66 | | 0.74 | V |
| | I _F =50mA | | V _F | 0.76 | | 0.86 | V |
| | I _F =100mA | | V _F | 0.82 | | 0.92 | V |
| | I _F =200mA | | V _F | 0.87 | | 1.0 | V |
| Reverse current | V _R =50V | | I _R | | | 100 | nA |
| | V _R =50V, T _j =150? | | I _R | | | 100 | μ A |
| Diode capacitance | V _R =0, f=1MHz, V _{HF} =50mV | | C _D | | | 2.5 | pF |
| Reverse recovery time | I _F = I _R =10...100mA, i _R =1mA, R _L =1000 | | t _{rr} | | | 4 | ns |

Dimensions in mm



Glass Case
 Mini Melf / SOD 80
 JEDEC DO 213 AA