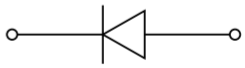
## Features

- $V_R$=40V
- $I_{F(AV)}$=0.2A
- Power Dissipation of 150mW
- High Current Capability
- Low Forward Voltage Drop
- Meets MSL level 1, per J-STD-020, LF maximum peak of 260℃

## Applications

For use in low voltage high frequency circuit signals.



## Mechanical Data

- Case: SOD-523

Molding compound meets UL 94V-0 fammability rating, RoHS-compliant, halogen-free

- Terminals: Solder plated, solderable per MIL-STD-750,Method 2026
- Polarity: Cathode line denotes the cathode end

SOD-523

## Maximum Ratings(Ta=25°C Unless otherwise specifed)

| PARAMETER | SYMBOL | UNIT | VALUE |
|---|---|---|---|
| Maximum repetitive peak reverse voltage | $V_{RRM}$ | V | 40 |
| Maximum RMS Voltage | $V_{RMS}$ | V | 28 |
| Maximum DC blocking voltage | $V_{DC}$ | V | 40 |
| Maximum average forward rectifed current | $I_{F(AV)}$ | A | 0.2 |
| Non-repetitive Peak Forward Surge Current @ t=8.3ms Half-sine wave | $I_{FSM}$ | A | 1.0 |
| Power Dissipation | $P_D$ | mW | 150 |
| Storage temperature range | $T_{STG}$ | °C | -55 ~+150 |
| Typical thermal resistance | $R_{\theta JA}$ | °C /W | 667 |

## Electrical Characteristics(Ta=25°C Unless otherwise noted)

| PARAMETER | TEST CONDITIONS | SYMBOL | UNIT | Min | Type | Max |
|---|---|---|---|---|---|---|
| Maximum forward voltage | $I_F$=10mA | $V_F$ | V | 0.16 | — | 0.30 |
| | $I_F$=100mA | | | 0.31 | — | 0.45 |
| | $I_F$=200mA | | | 0.41 | — | 0.54 |
| Maximum reverse current | $V_R$=10V | $I_R$ | μA | — | — | 20 |
| | $V_R$=40V | | | — | — | 90 |

## Ratings and Characteristics Curves(Ta=25°C Unless otherwise specifed)

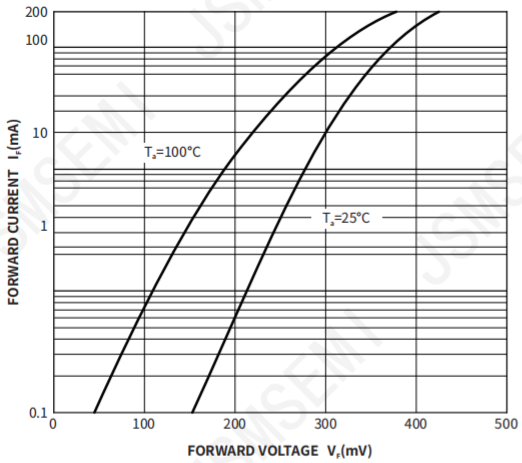



Fig.1 Typical Instaneous Forward Characteristics

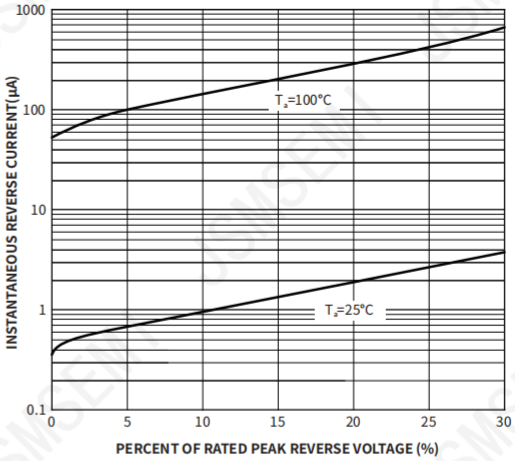



Fig.2 Typical Reverse Characteristics

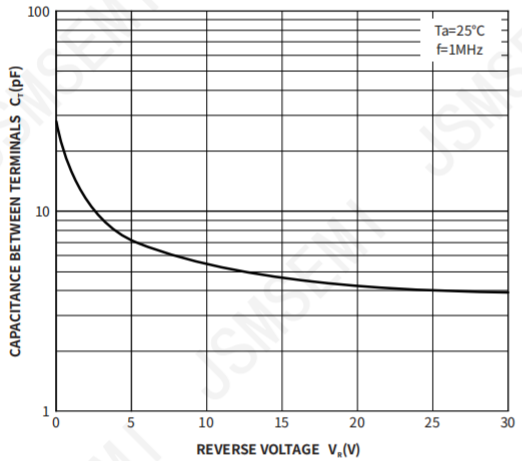



Fig.3 Typical Junction Capacitance

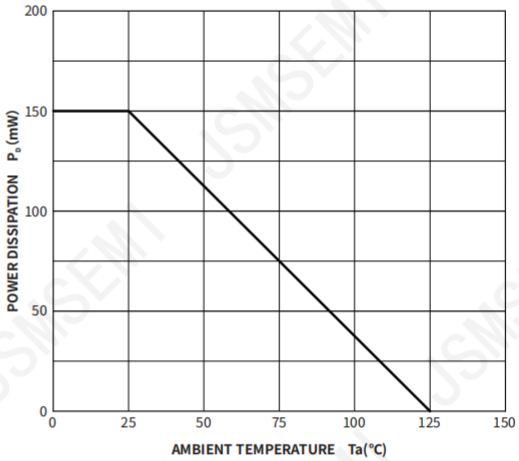
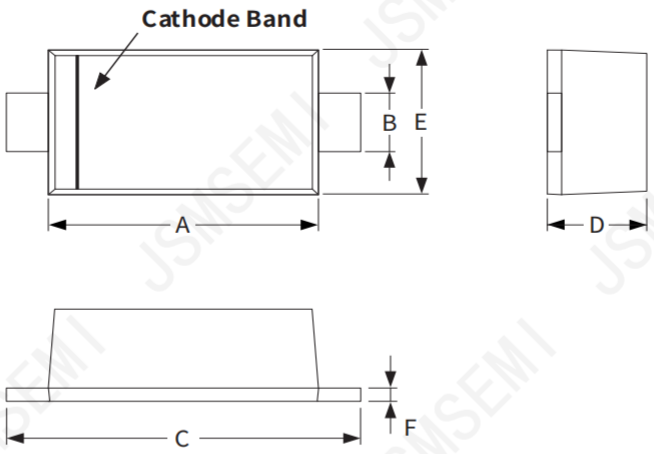


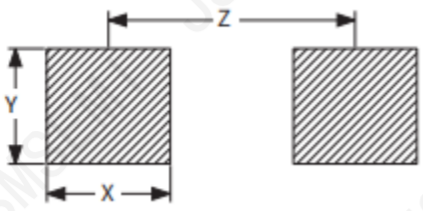

Fig.4 Power Derating Curve

## Package Outline Dimensions (SOD-523)




| Dimensions | | | | |
|---|---|---|---|---|
| Symbol | Millimeters | | Inches | |
| | Min | Max | Min | Max |
| A | 1.10 | 1.30 | 0.043 | 0.051 |
| B | 0.25 | 0.35 | 0.010 | 0.014 |
| C | 1.50 | 1.70 | 0.059 | 0.067 |
| D | 0.50 | 0.70 | 0.020 | 0.027 |
| E | 0.70 | 0.90 | 0.027 | 0.035 |
| F | 0.05 | 0.20 | 0.002 | 0.008 |

## Suggested Pad Layout




| Dimensions | | | | |
|---|---|---|---|---|
| Symbol | Millimeters | | Inches | |
| | Min. | Max. | Min. | Max. |
| X | 0.55 | 0.65 | 0.022 | 0.026 |
| Y | 0.65 | 0.75 | 0.026 | 0.029 |
| Z | 1.37 | 1.47 | 0.054 | 0.058 |

## Revision History

| Rev. | Change | Date |
|---|---|---|
| V1.0 | Initial version | 6/27/2021 |
| | | |

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