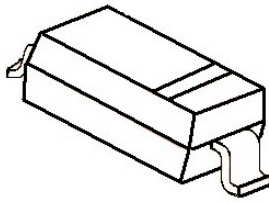


SOD-323

SOD-323 Plastic-Encapsulate Zener Diode



特征 Features

- 齐纳击穿阻抗低; Low Zener Impedance
- 最大功率耗散 200mW; Power Dissipation of 200mW
- 高稳定性和可靠性。High Stability and High Reliability

机械数据 Mechanical Data

- 封装: SOD-323 封装 SOD-323 Small Outline Plastic Package
- 极性: 色环端为负极 Polarity: Color band denotes cathode end
- 环氧树脂 UL 易燃等级 Epoxy UL: 94V-0
- 安装位置: 任意 Mounting Position: Any

极限值和温度特性(TA = 25°C 除非另有规定)

Maximum Ratings & Thermal Characteristics (Ratings at 25°C ambient temperature unless otherwise specified.)

| 参数 Parameters                  | 符号 Symbol | 数值 Value          | 单位 Unit |
|--------------------------------|-----------|-------------------|---------|
| 功率消耗 Power Dissipation         | Pd        | 200 <sup>1)</sup> | mW      |
| 正向压降 Forward Voltage @IF=10mA  | Vf        | 0.9 <sup>2)</sup> | V       |
| 存储温度 Storage temperature range | Ts        | -65-+150          | °C      |

1) Device mounted on ceramic PCB: 7.6mm x 9.4mm x 0.87mm with pad areas 25mm<sup>2</sup>

2) Short duration test pulse used to minimize self-heating effect

3) f=1KHz

电特性 (TA = 25°C 除非另有规定)

Electrical Characteristics (Ratings at 25°C ambient temperature unless otherwise specified).

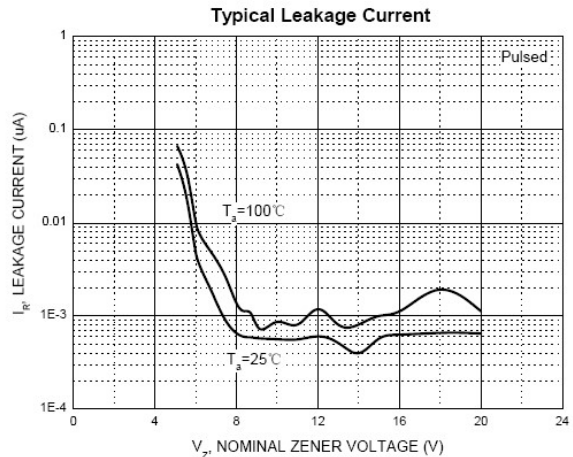
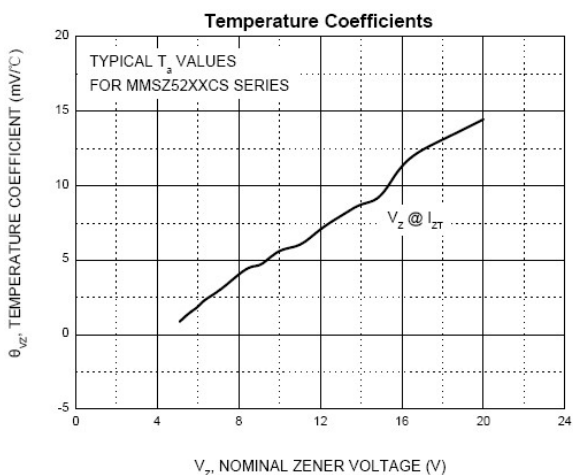
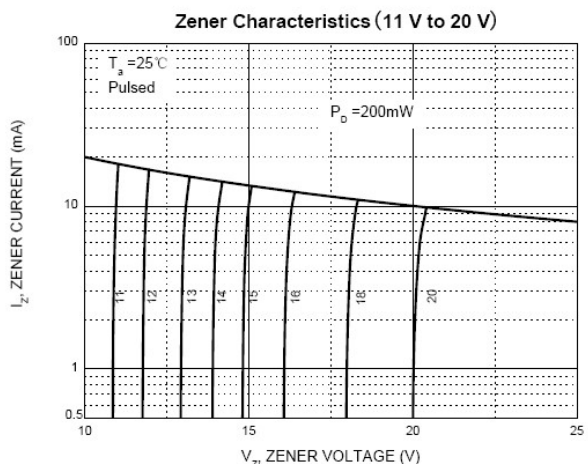
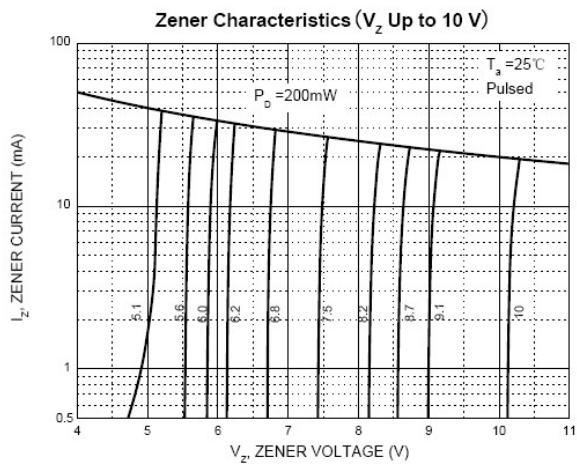
| Type Number | Code | Zener Voltage Range (Note 2)    |        |        | Test Current | Maximum Zener Impedance |                                  | Maximum Reverse Leakage Current           |                |
|-------------|------|---------------------------------|--------|--------|--------------|-------------------------|----------------------------------|---|----------------|
|             |      | V <sub>Z</sub> @I <sub>ZT</sub> |        |        |              | I <sub>ZT</sub>         | Z <sub>ZT</sub> @I <sub>ZT</sub> | Z <sub>ZK</sub> @I <sub>ZK</sub> = 0.25mA | I <sub>R</sub> |
|             |      | Nom(V)                          | Min(V) | Max(V) | mA           |                         |                                  |   |                |
| MMSZ5221CS  | 2C1  | 2.4                             | 2.35   | 2.45   | 20           | 30                      | 1200                             | 100                                       | 1.0            |
| MMSZ5223CS  | 2C3  | 2.7                             | 2.65   | 2.75   | 20           | 30                      | 1300                             | 75  | 1.0            |
| MMSZ5225CS  | 2C5  | 3.0                             | 2.94   | 3.06   | 20           | 30                      | 1600                             | 50  | 1.0            |
| MMSZ5226CS  | 2G1  | 3.3                             | 3.23   | 3.37   | 20           | 28                      | 1600                             | 25  | 1.0            |
| MMSZ5227CS  | 2G2  | 3.6                             | 3.53   | 3.67   | 20           | 24                      | 1700                             | 15  | 1.0            |
| MMSZ5228CS  | 2G3  | 3.9                             | 3.82   | 3.98   | 20           | 23                      | 1900                             | 10  | 1.0            |
| MMSZ5229CS  | 2G4  | 4.3                             | 4.21   | 4.39   | 20           | 22                      | 2000                             | 5.0                                       | 1.0            |
| MMSZ5230CS  | 2G5  | 4.7                             | 4.61   | 4.79   | 20           | 19                      | 1900                             | 5.0                                       | 2.0            |
| MMSZ5231CS  | 2E1  | 5.1                             | 5.00   | 5.20   | 20           | 17                      | 1600                             | 5.0                                       | 2.0            |
| MMSZ5232CS  | 2E2  | 5.6                             | 5.49   | 5.71   | 20           | 11                      | 1600                             | 5.0                                       | 3.0            |
| MMSZ5233CS  | 2E3  | 6.0                             | 5.88   | 6.12   | 20           | 7                       | 1600                             | 5.0                                       | 3.5            |
| MMSZ5234CS  | 2E4  | 6.2                             | 6.08   | 6.32   | 20           | 7                       | 1000                             | 5.0                                       | 4.0            |
| MMSZ5235CS  | 2E5  | 6.8                             | 6.66   | 6.94   | 20           | 5                       | 750                              | 3.0                                       | 5.0            |
| MMSZ5236CS  | 2F1  | 7.5                             | 7.35   | 7.65   | 20           | 6                       | 500                              | 3.0                                       | 6.0            |
| MMSZ5237CS  | 2F2  | 8.2                             | 8.04   | 8.36   | 20           | 8                       | 500                              | 3.0                                       | 6.5            |
| MMSZ5238CS  | 2F3  | 8.7                             | 8.53   | 8.87   | 20           | 8                       | 600                              | 3.0                                       | 6.5            |
| MMSZ5239CS  | 2F4  | 9.1                             | 8.92   | 9.28   | 20           | 10                      | 600                              | 3.0                                       | 7.0            |
| MMSZ5240CS  | 2F5  | 10                              | 9.80   | 10.20  | 20           | 17                      | 600                              | 3.0                                       | 8.0            |

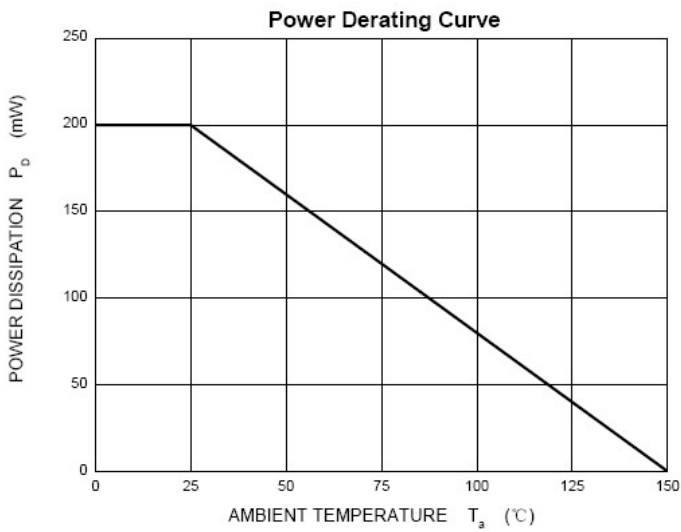
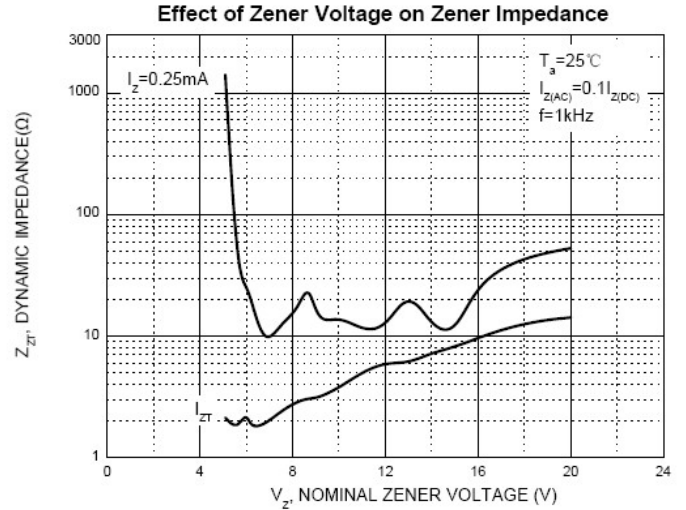
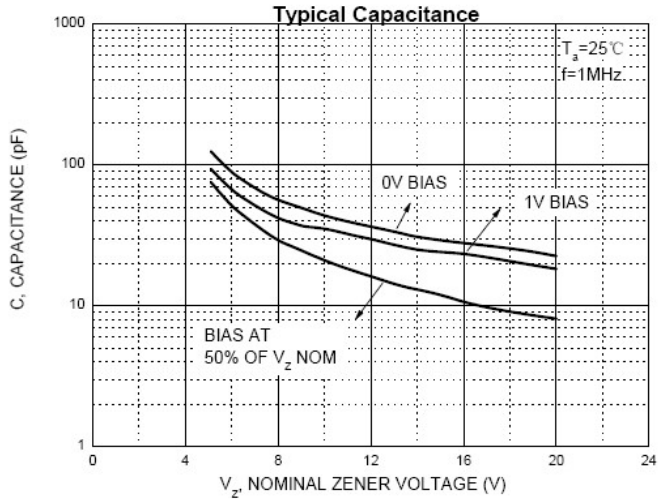
# MMSZ521CS- MMSZ5259CS Series

| Type Number | Code | Zener Voltage Range (Note 2) |        |        | Test Current | Maximum Zener Impedance |                   | Maximum Reverse Leakage Current |       |
|-------------|------|------------------------------|--------|--------|--------------|-------------------------|-------------------|---------------------------------|-------|
|             |      | $V_Z @ I_{ZT}$               |        |        |              | $I_{ZT}$                | $Z_{ZT} @ I_{ZT}$ | $Z_{ZK} @ I_{ZK} = 0.25mA$      | $I_R$ |
|             |      | Nom(V)                       | Min(V) | Max(V) | mA           | $\Omega$                |                   | $\mu A$                         | V     |
| MMSZ5241CS  | 2H1  | 11                           | 10.78  | 11.22  | 20           | 22                      | 600               | 2.0                             | 8.4   |
| MMSZ5242CS  | 2H2  | 12                           | 11.76  | 12.24  | 20           | 30                      | 600               | 1.0                             | 9.1   |
| MMSZ5243CS  | 2H3  | 13                           | 12.74  | 13.26  | 9.5          | 13                      | 600               | 0.5                             | 9.9   |
| MMSZ5244CS  | 2H4  | 14                           | 13.72  | 14.28  | 9.0          | 15                      | 600               | 0.1                             | 10    |
| MMSZ5245CS  | 2H5  | 15                           | 14.70  | 15.30  | 8.5          | 16                      | 600               | 0.1                             | 11    |
| MMSZ5246CS  | 2J1  | 16                           | 15.68  | 16.32  | 7.8          | 17                      | 600               | 0.1                             | 12    |
| MMSZ5248CS  | 2J3  | 18                           | 17.64  | 18.36  | 7.0          | 21                      | 600               | 0.1                             | 14    |
| MMSZ5250CS  | 2J5  | 20                           | 19.60  | 20.40  | 6.2          | 25                      | 600               | 0.1                             | 15    |
| MMSZ5251CS  | 2K1  | 22                           | 21.56  | 22.44  | 5.6          | 29                      | 600               | 0.1                             | 17    |
| MMSZ5252CS  | 2K2  | 24                           | 23.52  | 24.48  | 5.2          | 33                      | 600               | 0.1                             | 18    |
| MMSZ5253CS  | 2K3  | 25                           | 24.50  | 25.50  | 5.0          | 35                      | 600               | 0.1                             | 19    |
| MMSZ5254CS  | 2K4  | 27                           | 26.46  | 27.54  | 5.0          | 41                      | 600               | 0.1                             | 21    |
| MMSZ5255CS  | 2K5  | 28                           | 27.44  | 28.56  | 4.5          | 44                      | 600               | 0.1                             | 21    |
| MMSZ5256CS  | 2M1  | 30                           | 29.40  | 30.60  | 4.2          | 49                      | 600               | 0.1                             | 23    |
| MMSZ5257CS  | 2M2  | 33                           | 32.34  | 33.66  | 3.8          | 58                      | 700               | 0.1                             | 25    |
| MMSZ5258CS  | 2M3  | 36                           | 35.28  | 36.72  | 3.4          | 70                      | 700               | 0.1                             | 27    |
| MMSZ5259CS  | 2M4  | 39                           | 38.22  | 39.78  | 3.2          | 80                      | 800               | 0.1                             | 30    |

$V_F \leq 0.9V @ I_F = 10mA$

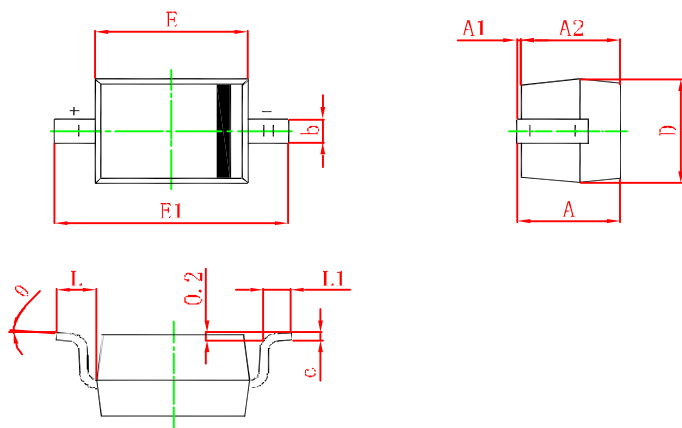
Notes: Our company currently provide 5.1 V - 20 V products only





**SOD-323 PACKAGE OUTLINE** Plastic surface mounted package

**SOD-323**



| Symbol | Min.(mm) | Max.(mm) |
|--------|----------|----------|
| A      |          | 1.000    |
| A1     | 0.000    | 0.100    |
| A2     | 0.800    | 0.900    |
| b      | 0.250    | 0.350    |
| c      | 0.080    | 0.150    |
| D      | 1.200    | 1.400    |
| E      | 1.600    | 1.800    |
| E1     | 2.500    | 2.700    |
| L      | 0.475REF |          |
| L1     | 0.250    | 0.400    |
| θ      | 0°       | 8°       |