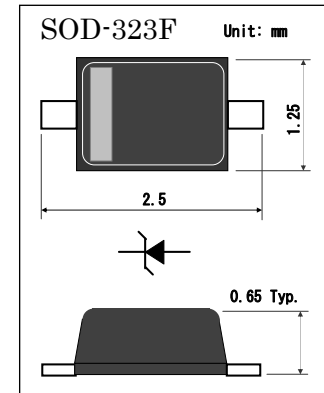


Zener Diodes / DATA SHEET

M3Z2V0C – M3Z75VC series

- ◇ Constant Voltage control
- ◇ Wide Voltage Range Selection 2.0V to 75V
- ◇ Vz tolerance selection of $\pm 5\%$ (C series)
- ◇ SOD323F Thin SMD package
- ◇ RoHS compliant / Green EMC
- ◇ Matte Tin (Sn) Lead finish
- ◇ Cathode Band / Device marking
Refer to table list



Maximum Ratings ($T_a = 25\text{ }^\circ\text{C}$)

| Symbol | Parameter | Value | Units |
|-----------|---------------------------|-------------|------------------|
| P_D | Power Dissipation | 200 | mW |
| T_J | Junction Temperature | 150 | $^\circ\text{C}$ |
| T_{STG} | Storage Temperature | -55 to +125 | $^\circ\text{C}$ |
| I_{ZM} | Maximum Regulator Current | P_D/V_Z | mA |

Electrical Characteristics ($T_a = 25\text{ }^\circ\text{C}$)

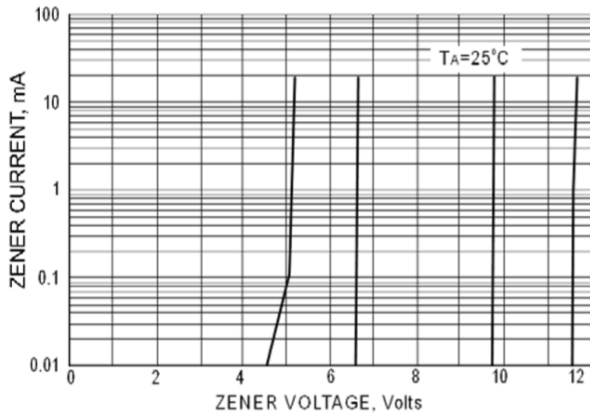
| Type Number | Device Marking | V_Z (V)*1 | | | $Z_{zt}(\Omega)$ max. | I_Z (mA) | $Z_{zk}(\Omega)$ max. | I_{zk} (mA) | $I_R(\mu A)$ max. | V_R (V) |
|-------------|----------------|-------------|------|------|-----------------------|------------|-----------------------|---------------|-------------------|-----------|
| | | min. | typ. | max. | | | | | | |
| M3Z2V0C | 2v0 | 1.90 | 2.0 | 2.10 | 100 | 5 | 600 | 1 | 120 | 1.0 |
| M3Z2V2C | 2v2 | 2.09 | 2.2 | 2.31 | 100 | 5 | 600 | 1 | 120 | 1.0 |
| M3Z2V4C | 2v4 | 2.20 | 2.4 | 2.60 | 90 | 5 | 600 | 1 | 120 | 1.0 |
| M3Z2V7C | 2v7 | 2.50 | 2.7 | 2.90 | 90 | 5 | 600 | 1 | 100 | 1.0 |
| M3Z3V0C | 3v0 | 2.80 | 3.0 | 3.20 | 85 | 5 | 600 | 1 | 50 | 1.0 |
| M3Z3V3C | 3v3 | 3.10 | 3.3 | 3.50 | 85 | 5 | 600 | 1 | 20 | 1.0 |
| M3Z3V6C | 3v6 | 3.40 | 3.6 | 3.80 | 85 | 5 | 600 | 1 | 10 | 1.0 |
| M3Z3V9C | 3v9 | 3.70 | 3.9 | 4.10 | 85 | 5 | 600 | 1 | 5 | 1.0 |
| M3Z4V3C | 4v3 | 4.00 | 4.3 | 4.60 | 80 | 5 | 600 | 1 | 5 | 1.0 |
| M3Z4V7C | 4v7 | 4.40 | 4.7 | 5.00 | 70 | 5 | 500 | 1 | 2 | 1.0 |
| M3Z5V1C | 5v1 | 4.80 | 5.1 | 5.40 | 50 | 5 | 480 | 1 | 2 | 1.5 |

Continued next page

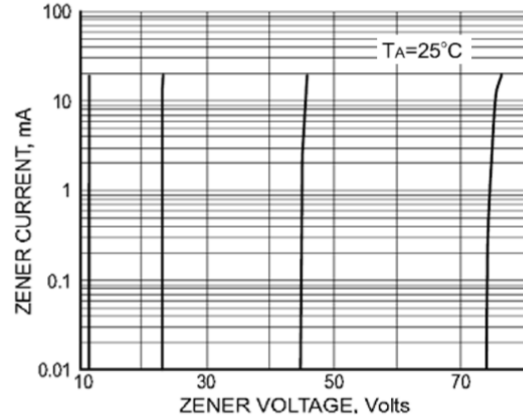
| Device No | Device Marking | Vz(V) *1 | | | Zzt(Ω) | Iz | Zzk(Ω) | Izk | I _R (μA) | V _R |
|-----------|----------------|----------|------|-------|--------|------|--------|------|---------------------|----------------|
| | | min. | typ. | max. | max. | (mA) | max. | (mA) | max. | (V) |
| M3Z5V6C | 5v6 | 5.32 | 5.6 | 5.88 | 30 | 5 | 400 | 1 | 1 | 2.0 |
| M3Z6V2C | 6v2 | 5.89 | 6.2 | 6.51 | 10 | 5 | 150 | 1 | 1 | 3.0 |
| M3Z6V8C | 6v8 | 6.46 | 6.8 | 7.14 | 10 | 5 | 80 | 1 | 0.5 | 4.0 |
| M3Z7V5C | 7v5 | 7.11 | 7.5 | 7.86 | 10 | 5 | 50 | 1 | 0.5 | 5.0 |
| M3Z8V2C | 8v2 | 7.79 | 8.2 | 8.61 | 10 | 5 | 50 | 1 | 0.5 | 6.0 |
| M3Z9V1C | 9v1 | 8.65 | 9.1 | 9.56 | 10 | 5 | 50 | 1 | 0.5 | 7.0 |
| M3Z10VC | 10 | 9.50 | 10.0 | 10.50 | 15 | 5 | 70 | 1 | 0.1 | 7.5 |
| M3Z11VC | 11 | 10.45 | 11.0 | 11.55 | 20 | 5 | 70 | 1 | 0.1 | 8.0 |
| M3Z12VC | 12 | 11.40 | 12.0 | 12.60 | 20 | 5 | 90 | 1 | 0.1 | 9.0 |
| M3Z13VC | 13 | 12.35 | 13.0 | 13.65 | 26 | 5 | 110 | 1 | 0.1 | 10 |
| M3Z15VC | 15 | 14.25 | 15.0 | 15.75 | 30 | 5 | 110 | 1 | 0.1 | 11 |
| M3Z16VC | 16 | 15.20 | 16.0 | 16.80 | 40 | 5 | 170 | 1 | 0.1 | 12 |
| M3Z18VC | 18 | 17.10 | 18.0 | 18.90 | 45 | 5 | 170 | 1 | 0.1 | 14 |
| M3Z20VC | 20 | 19.00 | 20.0 | 21.00 | 55 | 5 | 220 | 1 | 0.1 | 15 |
| M3Z22VC | 22 | 20.90 | 22.0 | 23.10 | 55 | 5 | 220 | 1 | 0.1 | 17 |
| M3Z24VC | 24 | 22.80 | 24.0 | 25.20 | 70 | 5 | 220 | 1 | 0.1 | 19 |
| M3Z27VC | 27 | 25.65 | 27.0 | 28.35 | 80 | 5 | 220 | 1 | 0.1 | 20 |
| M3Z30VC | 30 | 28.50 | 30.0 | 31.50 | 80 | 5 | 220 | 1 | 0.1 | 22 |
| M3Z33VC | 33 | 31.35 | 33.0 | 34.65 | 80 | 5 | 220 | 1 | 0.1 | 24 |
| M3Z36VC | 36 | 34.20 | 36.0 | 37.80 | 80 | 5 | 220 | 1 | 0.1 | 27 |
| M3Z39VC | 39 | 37.05 | 39.0 | 40.95 | 90 | 2.5 | 500 | 0.5 | 0.1 | 29 |
| M3Z43VC | 43 | 40.85 | 43.0 | 45.15 | 90 | 2.5 | 600 | 0.5 | 0.1 | 32 |
| M3Z47VC | 47 | 44.65 | 47.0 | 49.35 | 110 | 2.5 | 700 | 0.5 | 0.1 | 35 |
| M3Z51VC | 51 | 48.45 | 51.0 | 53.55 | 125 | 2.5 | 700 | 0.5 | 0.1 | 38 |
| M3Z56VC | 56 | 53.20 | 56.0 | 58.80 | 135 | 2.5 | 1000 | 0.5 | 0.1 | 42 |
| M3Z62VC | 62 | 58.90 | 62.0 | 65.10 | 150 | 2.5 | 1000 | 0.5 | 0.1 | 47 |
| M3Z68VC | 68 | 64.60 | 68.0 | 71.40 | 200 | 2.5 | 1000 | 0.5 | 0.1 | 51 |
| M3Z75VC | 75 | 71.25 | 75.0 | 78.75 | 250 | 2.5 | 1500 | 0.5 | 0.1 | 56 |

*1 Pulse width = 10 ms

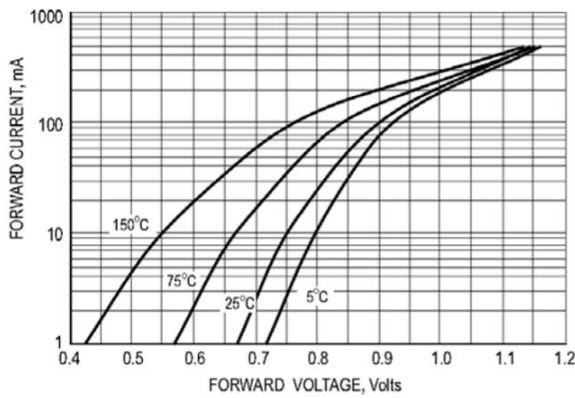
Typical Characteristics



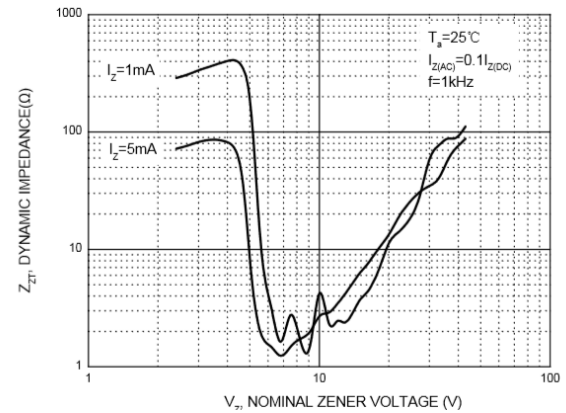
ZENER BREAKDOWN CHARACTERISTIC



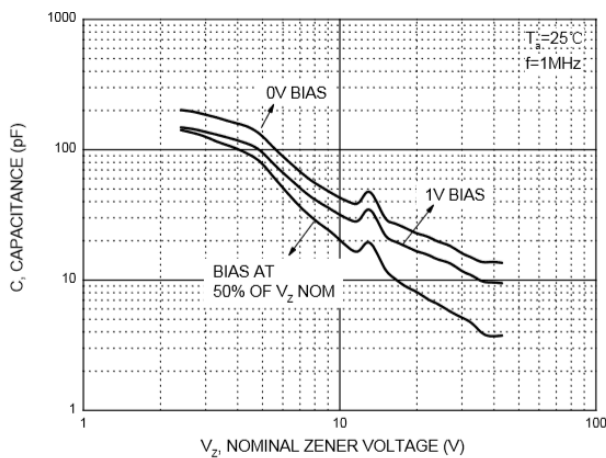
ZENER BREAKDOWN CHARACTERISTICS



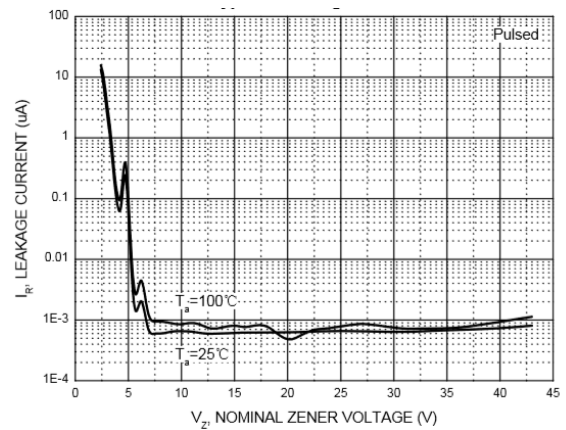
TYPICAL FORWARD VOLTAGE



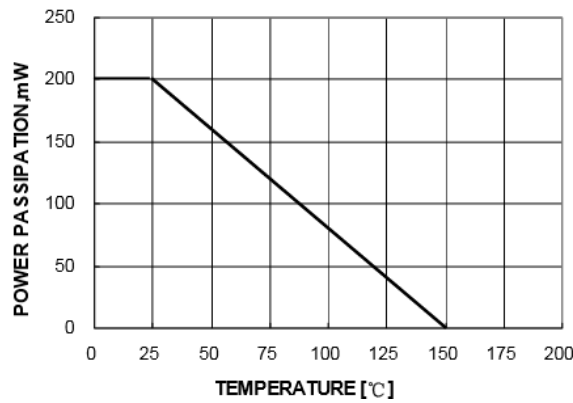
Effect of Zener Voltage on Zener Impedance



Typical Capacitance



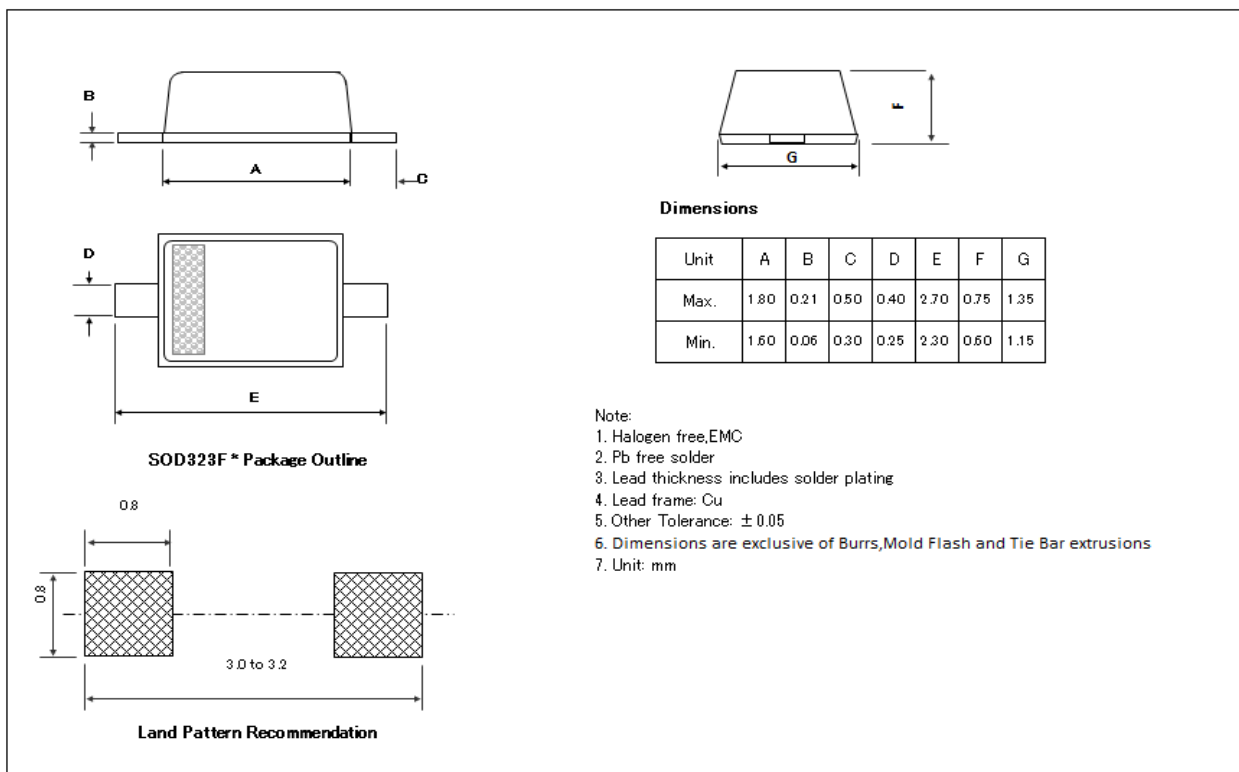
Typical Leakage Current



Ordering Information

| Device | Package | Shipping | Tape wide | Emboss pitch | Tape specification | Notes |
|-----------------------------|---------|------------------------------------|-----------|--------------|--------------------|-------|
| M3Z2V0C – M3Z75VC series | SOD323F | Tape & Reel 3000pcs /7” Reel | 8 mm | 4 mm | Conductive | |

Package Dimensions



NOTICE

AM'S PRODUCTS ARE NOT AUTHORIZED FOR USE AS COMPONENTS IN ANY LIFE SUPPORT DEVICES OR SYSTEMS.

AM reserve the right to make modifications, enhancements, improvements, corrections or other changes without further notice to any product herein. AM does not assume any liability arising out of the application or use of any product described herein.

X-ON Electronics

Largest Supplier of Electrical and Electronic Components

Click to view similar products for [Zener Diodes](#) category:

Click to view products by [amsem](#) manufacturer:

Other Similar products are found below :

[RKZ13B2KG#P1](#) [DL5234B](#) [1N4682](#) [1N4693](#) [1N4732A](#) [1N4736A](#) [1N4750A](#) [1N4759ARL](#) [1N5241B](#) [1N5365B](#) [1N5369B](#) [1N747A](#)
[1N964B](#) [1N966B](#) [1N968B](#) [1N972B](#) [JANS1N4974US](#) [1N4692](#) [1N4702](#) [1N4704](#) [1N4711](#) [1N4714](#) [1N4745ARL](#) [1N4752ARL](#) [1N4760ARL](#)
[1N5221B](#) [1N5242BTR](#) [1N5350B](#) [1N5352B](#) [1N961BRR1](#) [1N964BRL](#) [RKZ5.1BKU#P6](#) [3SMAJ5946B-TP](#) [3SMAJ5950B-TP](#)
[MMSZ5230BQ-13-F](#) [MMSZ5232BQ-13-F](#) [BZX84C7V5](#) [3SMAJ5945B-TP](#) [3SMAJ5947B-TP](#) [3SMBJ5941B-TP](#) [DZ2S240M0L](#) [SMAZ27-](#)
[TP](#) [ZMM5224B-7](#) [RD16UM-T1-A](#) [RD39S-T1-A](#) [RD10S-T1-A](#) [CDZT2R5.6B](#) [1N4762A G](#) [Z1SMA18](#) [JANTX1N4553B](#)