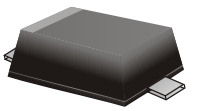
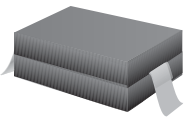
# 0.3W SILICON PLANAR ZENER DIODES

## FEATURES

SOD-323FL



SOD-323



- Total power dissipation: max. 300 mW
- Small plastic package suitable for surface mounted design
- Tolerance approximately ±5%
- High temperature soldering guaranteed: 260℃/10 seconds at terminals
- Component in accordance to RoHS 2002/95/EC and WEEE 2002/96/EC

## MECHANICAL DATA

- *Case*: SOD-323 plastic case
- *Weight*: Approx. 0.004 gram

## ABSOLUTE MAXIMUM RATINGS(LIMITING VALUES) ($T_A$=25℃)

| | *Symbols* | *Value* | *Units* |
|---|---|---|---|
| Zener current see table "Characteristics" | | | |
| Power dissipation | $P_{tot}$ | 300 | mW |
| Junction temperature | $T_J$ | 150 | ℃ |
| Storage temperature range | $T_{STG}$ | −55 to+150 | ℃ |

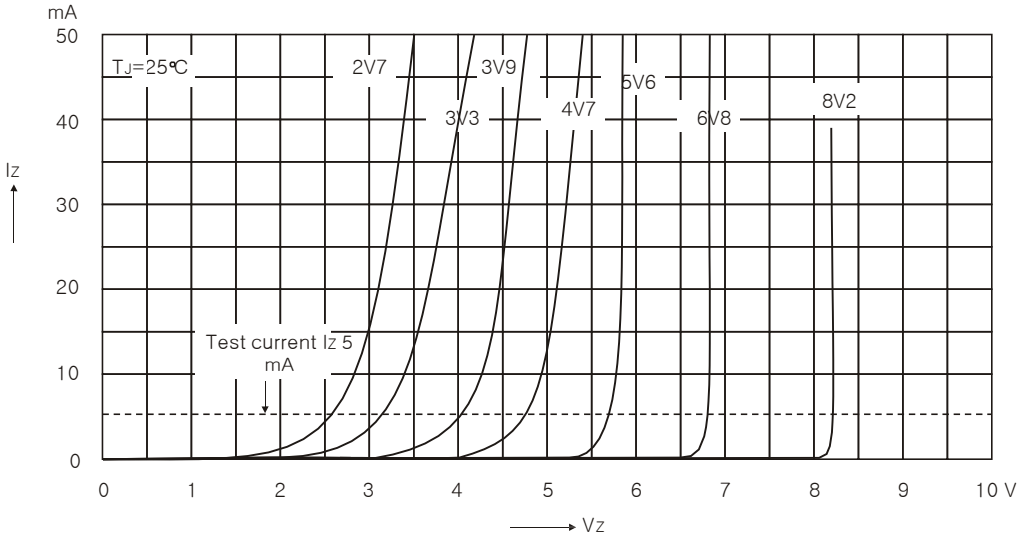
## ELECTRICAL CHARACTERISTICS ($T_A$=25℃)

| | *Symbols* | *Min* | *Typ* | *Max* | *Units* |
|---|---|---|---|---|---|
| Thermal resistance junction to ambient | $R_{\theta JA}$ | | | 300 | K/W |
| Forward voltage at $I_F$=10mA | $V_F$ | | | 0.9 | V |

| Type | Marking | Zener Voltage range 1) | | | Dynamic resistance 2) | | Reverse leakage current | | Temp Coefficient of zener voltage |
|---|---|---|---|---|---|---|---|---|---|
| | | $V_{ZNOM}$ | $I_{ZT}$ for $V_{ZT}$ | | $r_{ZJT}$ and $r_{ZJK}$ at $I_{ZK}$ | | $I_R$ and $I_R$ at $V_R$ | | $TK_{VZ}$ |
| | | V | mA | V | Ω | mA | μA | V | %/K |
| MM3Z2V0 | WY | 2.0 | 5 | 1.80…2.15 | 100 | 5 | 120 | 0.5 | -0.09…-0.06 |
| MM3Z2V4 | 00 | 2.4 | 5 | 2.28…2.56 | 100 | 5 | 120 | 1 | -0.09…-0.06 |
| MM3Z2V7 | 01 | 2.7 | 5 | 2.5…2.9 | 110 | 5 | 120 | 1 | -0.09…-0.06 |
| MM3Z3V0 | 02 | 3.0 | 5 | 2.8…3.2 | 120 | 5 | 50 | 1 | -0.08…-0.05 |
| MM3Z3V3 | 05 | 3.3 | 5 | 3.1…3.5 | 130 | 5 | 20 | 1 | -0.08…-0.05 |
| MM3Z3V6 | 06 | 3.6 | 5 | 3.4…3.8 | 130 | 5 | 10 | 1 | -0.08…-0.05 |
| MM3Z3V9 | 07 | 3.9 | 5 | 3.7…4.1 | 130 | 5 | 5 | 1 | -0.08…-0.05 |
| MM3Z4V3 | 08 | 4.3 | 5 | 4…4.6 | 130 | 5 | 5 | 1 | -0.06…-0.03 |
| MM3Z4V7 | 09 | 4.7 | 5 | 4.4…5 | 130 | 5 | 2 | 1 | -0.05…+0.02 |
| MM3Z5V1 | 0A | 5.1 | 5 | 4.8…5.4 | 130 | 5 | 2 | 1.5 | -0.02…+0.02 |
| MM3Z5V6 | 0C | 5.6 | 5 | 5.2…6 | 80 | 5 | 1 | 2.5 | -0.05…+0.05 |
| MM3Z6V2 | 0E | 6.2 | 5 | 5.8…6.6 | 50 | 5 | 1 | 3 | 0.03…0.06 |
| MM3Z6V8 | 0F | 6.8 | 5 | 6.4…7.2 | 30 | 5 | 0.5 | 3.5 | 0.03…0.07 |
| MM3Z7V5 | 0G | 7.5 | 5 | 7…7.9 | 30 | 5 | 0.5 | 4 | 0.03…0.07 |
| MM3Z8V2 | 0H | 8.2 | 5 | 7.7…8.7 | 30 | 5 | 0.5 | 5 | 0.03…0.08 |
| MM3Z9V1 | 0K | 9.1 | 5 | 8.5…9.6 | 30 | 5 | 0.5 | 6 | 0.03…0.09 |
| MM3Z10 | 0L | 10 | 5 | 9.4…10.6 | 30 | 5 | 0.1 | 7 | 0.03…0.1 |
| MM3Z11 | 0M | 11 | 5 | 10.4…11.6 | 30 | 5 | 0.1 | 8 | 0.03…0.11 |
| MM3Z12 | 0N | 12 | 5 | 11.4…12.7 | 35 | 5 | 0.1 | 9 | 0.03…0.11 |
| MM3Z13 | 0P | 13 | 5 | 12.4…14.1 | 35 | 5 | 0.1 | 10 | 0.03…0.11 |
| MM3Z15 | 0T | 15 | 5 | 13.8…15.6 | 40 | 5 | 0.1 | 11 | 0.03…0.11 |
| MM3Z16 | 0U | 16 | 5 | 15.3…17.1 | 40 | 5 | 0.1 | 12 | 0.03…0.11 |
| MM3Z18 | 0W | 18 | 5 | 16.8…19.1 | 45 | 5 | 0.1 | 13 | 0.03…0.11 |
| MM3Z20 | 0Z | 20 | 5 | 18.8…21.2 | 50 | 5 | 0.1 | 15 | 0.03…0.11 |
| MM3Z22 | 10 | 22 | 5 | 20.8…23.3 | 55 | 5 | 0.1 | 17 | 0.04…0.12 |
| MM3Z24 | 11 | 24 | 5 | 22.8…25.6 | 60 | 5 | 0.1 | 19 | 0.04…0.12 |
| MM3Z27 | 12 | 27 | 5 | 25.1…28.9 | 70 | 2 | 0.1 | 21 | 0.04…0.12 |
| MM3Z30 | 14 | 30 | 5 | 28…32 | 80 | 2 | 0.1 | 23 | 0.04…0.12 |
| MM3Z33 | 18 | 33 | 5 | 31…35 | 80 | 2 | 0.1 | 25 | 0.04…0.12 |
| MM3Z36 | 19 | 36 | 5 | 34…38 | 90 | 2 | 0.1 | 27 | 0.04…0.12 |
| MM3Z39 | 20 | 39 | 2.5 | 37…41 | 100 | 2 | 2 | 30 | 0.04…0.12 |
| MM3Z43 | 21 | 43 | 2.5 | 40…46 | 130 | 2 | 2 | 33 | 0.04…0.12 |
| MM3Z47 | 1A | 47 | 2.5 | 44…50 | 150 | 2 | 2 | 36 | 0.04…0.12 |
| MM3Z51 | 1C | 51 | 2.5 | 48…54 | 180 | 2 | 1 | 39 | 0.04…0.12 |
| MM3Z56 | 1D | 56 | 2.5 | 52…60 | 180 | 2 | 1 | 43 | 0.04…0.12 |
| MM3Z62 | 1E | 62 | 2.5 | 58…66 | 200 | 2 | 0.2 | 47 | 0.04…0.12 |
| MM3Z68 | 1F | 68 | 2.5 | 64…72 | 250 | 2 | 0.2 | 52 | 0.04…0.12 |
| MM3Z75 | 1G | 75 | 2.5 | 70…79 | 300 | 2 | 0.2 | 57 | 0.04…0.12 |

1) $V_Z$ is teated with pulses tp=20ms
2) Zz is measured at ɮ by given a very small A.C. current signal

## BREAKDOWN CHARACTERISTICS AT T J= CONSTANT (PULSED)

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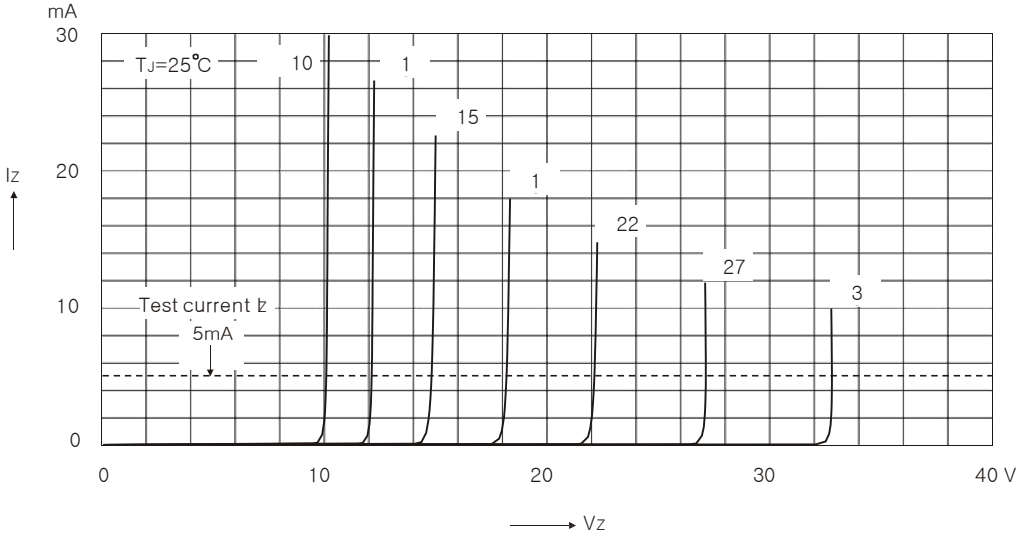
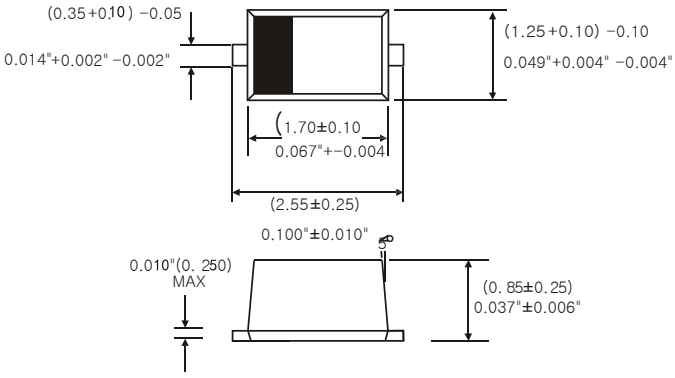
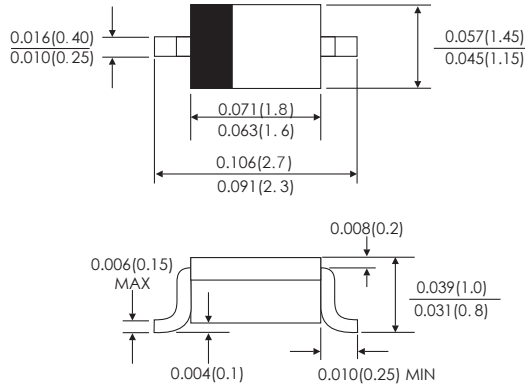


## SOD-323FL




Dimensionsin inches and (millimeters)

## SOD-323

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