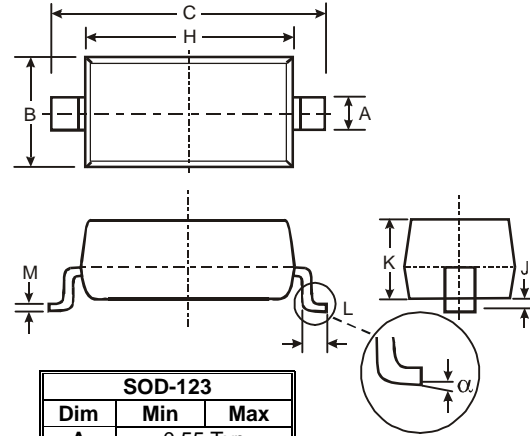


### Features

- Complete Voltage Range 2.4to 39 Volts
- Planar Die construction
- Ideally Suited for Automated Assembly Processes

### Mechanical Data

- Case Material: Molded Plastic. UL Flammability Classification Rating 94V-0 and MSL Rating 1
- Approx. Weight: 0.009 grams
- Mounting Position: Any
- Storage & Operating Temperature: -55°C to +150°C



| SOD-123  |          |      |
|----------|----------|------|
| Dim      | Min      | Max  |
| A        | 0.55 Typ |      |
| B        | 1.40     | 1.70 |
| C        | 3.55     | 3.85 |
| H        | 2.55     | 2.85 |
| J        | 0.00     | 0.10 |
| K        | 1.00     | 1.35 |
| L        | 0.25     | 0.40 |
| M        | 0.10     | 0.15 |
| $\alpha$ | 0        | 8°   |

All Dimensions in mm

### Maximum Ratings and Electrical Characteristics @ T<sub>A</sub> = 25°C unless otherwise specified

|   | SYMBOL           | VALUE              | UNIT |                    |       |
|---|------------------|--------------------|------|--------------------|-------|
| Zener Current (see Table "Characteristics") |                  |                    |      |                    |       |
| Power Dissipation at T <sub>L</sub> = 75°C  | P <sub>tot</sub> | 500 <sup>(1)</sup> | mW   |                    |       |
| Maximum Junction Temperature                | T <sub>j</sub>   | 150                | °C   |                    |       |
| Storage Temperature Range                   | T <sub>s</sub>   | -65 to +175        | °C   |                    |       |
|   | SYMBOL           | MIN.               | TYP. | MAX.               | UNIT  |
| Thermal Resistance Junction to Ambient Air  | R <sub>θJA</sub> | –                  | –    | 340 <sup>(1)</sup> | °C/W  |
| Forward Voltage at I <sub>F</sub> = 10 mA   | V <sub>F</sub>   | –                  | –    | 0.9                | Volts |



### Electrical Characteristics @ 25°C Unless Otherwise Specified

| MCC PART NUMBER | Marking | NORMAL ZENER VOLTAGE Vz @ Izt | TEST CURRENT Izt | MAXIMUM ZENER IMPEDANCE |                  | MAXIMUM REVERSE LEAKAGE CURRENT Ir @ Vr |       | MAXIMUM ZENER VOLTAGE TEMP |
|-----------------|---------|-------------------------------|------------------|-------------------------|------------------|---|-------|----------------------------|
|                 |         |                               |                  | Zzt @ Izt               | Zzk @ Izk=0.25mA | uA                                      | VOLTS |                            |
|                 |         | VOLTS                         | mA               | OHMS                    | OHMS             |   |       | %/°C                       |
| MMSZ5221        | C1      | 2.4                           | 20               | 30                      | 1200             | 100                                     | 1.0   | -0.085                     |
| MMSZ5222        | C2      | 2.5                           | 20               | 30                      | 1250             | 100                                     | 1.0   | -0.085                     |
| MMSZ5223        | C3      | 2.7                           | 20               | 30                      | 1300             | 75                                      | 1.0   | -0.080                     |
| MMSZ5225        | C5      | 3.0                           | 20               | 29                      | 1600             | 50                                      | 1.0   | -0.075                     |
| MMSZ5226        | G1/D1   | 3.3                           | 20               | 28                      | 1600             | 25                                      | 1.0   | -0.070                     |
| MMSZ5227        | G2/D2   | 3.6                           | 20               | 24                      | 1700             | 15                                      | 1.0   | -0.065                     |
| MMSZ5228        | G3/D3   | 3.9                           | 20               | 23                      | 1900             | 10                                      | 1.0   | -0.060                     |
| MMSZ5229        | G4/D4   | 4.3                           | 20               | 22                      | 2000             | 5.0                                     | 1.0   | ±0.055                     |
| MMS Z5230       | G5/ D5  | 4.7                           | 2                | 19                      | 1900             | 5.0                                     | 2.0   | ±0.030                     |
| MMSZ5231        | E1      | 5.1                           | 20               | 17                      | 1600             | 5.0                                     | 2.0   | ±0.030                     |
| MMSZ5232        | E2      | 5.6                           | 20               | 11                      | 1600             | 5.0                                     | 3.0   | +0.038                     |
| MMSZ5233        | E3      | 6.0                           | 20               | 7.0                     | 1600             | 5.0                                     | 3.5   | +0.040                     |
| MMSZ5234        | E4      | 6.2                           | 20               | 7.0                     | 1000             | 5.0                                     | 4.0   | +0.045                     |
| MMSZ5235        | E5      | 6.8                           | 20               | 5.0                     | 750              | 3.0                                     | 5.0   | +0.050                     |
| MMSZ5236        | F1      | 7.5                           | 20               | 6.0                     | 500              | 3.0                                     | 6.0   | +0.058                     |
| MMSZ5237        | F2      | 8.2                           | 20               | 8.0                     | 500              | 3.0                                     | 6.5   | +0.062                     |
| MMSZ5239        | F4      | 9.1                           | 20               | 10                      | 600              | 3.0                                     | 7.0   | +0.068                     |
| MMSZ5240        | F5      | 10                            | 20               | 17                      | 600              | 3.0                                     | 8.0   | +0.075                     |
| MMSZ5241        | H1      | 11                            | 20               | 22                      | 600              | 2.0                                     | 8.4   | +0.076                     |
| MMSZ5242        | H2      | 12                            | 20               | 30                      | 600              | 1.0                                     | 9.1   | +0.077                     |
| MMSZ5243        | H3      | 13                            | 9.5              | 13                      | 600              | 0.5                                     | 9.9   | +0.079                     |
| MMSZ5244        | H4      | 14                            | 9.0              | 15                      | 600              | 0.1                                     | 10.5  | +0.081                     |
| MMSZ5245        | H5      | 15                            | 8.5              | 16                      | 600              | 0.1                                     | 11    | +0.082                     |
| MMSZ5246        | J1      | 16                            | 7.8              | 17                      | 600              | 0.1                                     | 12    | +0.083                     |
| MMSZ5248        | J3      | 18                            | 7.0              | 21                      | 600              | 0.1                                     | 14    | +0.085                     |
| MMSZ5250        | J5      | 20                            | 6.2              | 25                      | 600              | 0.1                                     | 15    | +0.086                     |
| MMSZ5251        | K1      | 22                            | 5.6              | 29                      | 600              | 0.1                                     | 17    | +0.087                     |
| MMSZ5252        | K2      | 24                            | 5.2              | 33                      | 600              | 0.1                                     | 18    | +0.088                     |
| MMSZ5254        | K4      | 27                            | 4.6              | 41                      | 600              | 0.1                                     | 21    | +0.090                     |
| MMSZ5255        | K5      | 28                            | 4.5              | 44                      | 600              | 0.1                                     | 21    | +0.091                     |
| MMSZ5256        | M1      | 30                            | 4.2              | 49                      | 600              | 0.1                                     | 23    | +0.091                     |
| MMSZ5257        | M2      | 33                            | 3.8              | 58                      | 700              | 0.1                                     | 25    | +0.092                     |
| MMSZ5258        | M3      | 36                            | 3.4              | 70                      | 700              | 0.1                                     | 27    | +0.093                     |
| MMSZ5259        | M4      | 39                            | 3.2              | 80                      | 800              | 0.1                                     | 30    | +0.094                     |