MMSZ5221B-MMSZ5259B

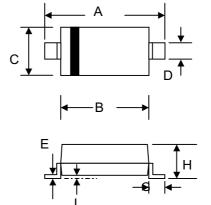
500mW SURFACE MOUNT ZENER DIODE

SEMICONDUCTOR

Data Sheet 2592 Rev.—

Features

- Planar Die Construction
- 500mW Power Dissipation
- 2.4-39V Nominal Zener Voltage
- 5% Standard Vz Tolerance
- Designed for Surface Mount Application
- Plastic Material –UL Recognition Flammability Classification 94V-O



| SOD-123 | | | | | | | |
|----------------------|------|------|--|--|--|--|--|
| Dim | Min | Max | | | | | |
| Α | 3.6 | 3.9 | | | | | |
| В | 2.5 | 2.8 | | | | | |
| С | 1.4 | 1.8 | | | | | |
| D | 0.5 | 0.7 | | | | | |
| Е | | 0.2 | | | | | |
| G | 0.4 | _ | | | | | |
| Н | 0.95 | 1.35 | | | | | |
| J | _ | 0.12 | | | | | |
| All Dimensions in mm | | | | | | | |

Mechanical Data

Case: SOD-123, Molded Plastic

 Terminals: Plated Leads Solderable per MIL-STD-202, Method 208

Polarity: Cathode Band

Weight: 0.01 grams (approx.)

Maximum Ratings @TA=25°C unless otherwise specified

| Characteristic | Symbol | Value | Unit |
|--|----------------|-------------|-------|
| Peak Pulse Power Dissipation at T _A =25°C | Pd | 500 | mW |
| Typical Thermal Resistance, Junction to Ambient Air | $R_{	heta}$ JA | 340 | °C /W |
| Forward Voltage Drop @ IF = 10mA | VF | 0.9 | V |
| Operating and Storage Temperature Range | Тј, Тѕтс | -65 to +150 | °C |

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| Number Mark | Device Marking Code | Marking Zener | Test Current IzT | Maximum Zener impedance | | Maximum reverse leakage current | | Typical Temp. Coefficient of |
|-------------|---------------------------|---------------|------------------------|-------------------------|--------------------|---------------------------------|-----------------------|---------------------------------|
| | | | | Zzτ@lzτ | Zzκ@ Izκ=0.25mA | IR UA | Test Voltage VR(V) | Zener Voltage |
| | | | | | | | V | |
| MMSZ5221B | C1 | 2.4 | 20 | 30 | 1200 | 100 | 1.0 | -0.075 |
| MMSZ5222B | C2 | 2.5 | 20 | 30 | 1200 | 100 | 1.0 | -0.075 |
| MMSZ5223B | C3 | 2.7 | 20 | 30 | 1300 | 75 | 1.0 | -0.075 |
| MMSZ5225B | C5 | 3.0 | 20 | 30 | 1600 | 50 | 1.0 | -0.075 |
| MMSZ5226B | D1 | 3.3 | 20 | 28 | 1600 | 25 | 1.0 | -0.070 |
| MMSZ5227B | D2 | 3.6 | 20 | 24 | 1700 | 15 | 1.0 | -0.065 |
| MMSZ5228B | D3 | 3.9 | 20 | 23 | 1900 | 10 | 1.0 | -0.060 |
| MMSZ5229B | D4 | 4.3 | 20 | 22 | 2000 | 5 | 1.0 | -0.055 |
| MMSZ5230B | D5 | 4.7 | 20 | 19 | 1900 | 5 | 2.0 | ±0.030 |
| MMSZ5231B | E1 | 5.1 | 20 | 17 | 1600 | 5 | 2.0 | ±0.030 |
| MMSZ5232B | E2 | 5.6 | 20 | 11 | 1600 | 5 | 3.0 | +0.038 |
| MMSZ5234B | E4 | 6.2 | 20 | 7 | 1000 | 5 | 4.0 | +0.045 |
| MMSZ5235B | E5 | 6.8 | 20 | 5 | 750 | 3 | 5.0 | +0.050 |
| MMSZ5236B | F1 | 7.5 | 20 | 6 | 500 | 3 | 6.0 | +0.058 |
| MMSZ5237B | F2 | 8.2 | 20 | 8 | 500 | 3 | 6.5 | +0.062 |
| MMSZ5239B | F4 | 9.1 | 20 | 10 | 600 | 3 | 7.0 | +0.068 |
| MMSZ5240B | F5 | 10 | 20 | 17 | 600 | 3 | 8.0 | +0.075 |
| MMSZ5241B | H1 | 11 | 20 | 22 | 600 | 2 | 8.4 | +0.076 |
| MMSZ5242B | H2 | 12 | 20 | 30 | 600 | 1 | 9.1 | +0.077 |
| MMSZ5243B | H3 | 13 | 9.5 | 13 | 600 | 0.5 | 9.9 | +0.079 |
| MMSZ5245B | H5 | 15 | 8.5 | 16 | 600 | 0.1 | 11 | +0.082 |
| MMSZ5246B | J1 | 16 | 7.8 | 17 | 600 | 0.1 | 12 | +0.083 |
| MMSZ5248B | J3 | 18 | 7.0 | 21 | 600 | 0.1 | 14 | +0.085 |
| MMSZ5250B | J5 | 20 | 6.2 | 25 | 600 | 0.1 | 15 | +0.086 |
| MMSZ5251B | K1 | 22 | 5.6 | 29 | 600 | 0.1 | 17 | +0.087 |
| MMSZ5252B | K2 | 24 | 5.2 | 33 | 600 | 0.1 | 18 | +0.087 |
| MMSZ5254B | K4 | 27 | 4.6 | 41 | 600 | 0.1 | 21 | +0.090 |
| MMSZ5255B | K5 | 28 | 4.5 | 44 | 600 | 0.1 | 21 | +0.091 |
| MMSZ5256B | M1 | 30 | 4.2 | 49 | 600 | 0.1 | 23 | +0.091 |
| MMSZ5257B | M2 | 33 | 3.8 | 58 | 700 | 0.1 | 25 | +0.092 |
| MMSZ5258B | M3 | 36 | 3.4 | 70 | 700 | 0.1 | 27 | +0.093 |
| MMSZ5259B | M4 | 39 | 3.2 | 80 | 800 | 0.1 | 30 | +0.094 |

Note: 1.Type numbers listed have standard tolerance on the nominal zener voltage of ±5%. 2.Measured with pulses t_p=1ms 3.f=1KHZ