



**THE DATASHEET OF
MMSZ5256B_R1_00001**



MMSZ5221B ~ MMSZ5267B Series

SURFACE MOUNT SILICON ZENER DIODES

VOLTAGE

2.4 to 75 Volt

POWER

500 mWatt

SOD-123

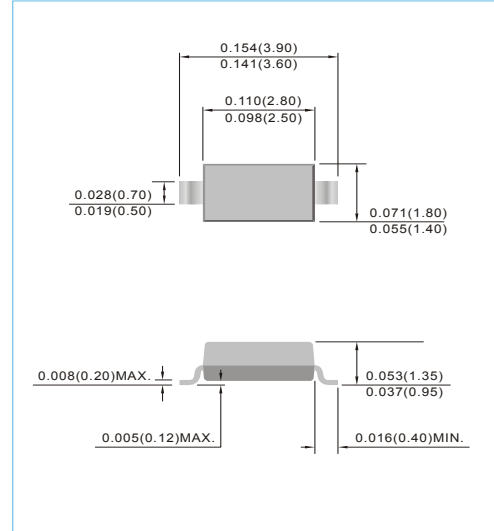
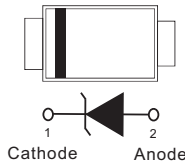
Unit : inch(mm)

FEATURES

- Planar Die construction
- 500mW Power Dissipation
- Ideally Suited for Automated Assembly Processes
- Lead free in compliance with EU RoHS 2.0
- Green molding compound as per IEC 61249 standard

MECHANICAL DATA

- Case : SOD-123, Molded Plastic
- Terminals : Solderable per MIL-STD-750, Method 2026
- Approx. Weight : 0.0104 gram



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

| Parameter | Symbol | Value | Units |
|---|-----------------|-------------|---------------|
| Total Power Dissipation (Notes A) | P_D | 500 | mW |
| Typical Thermal Resistance (Notes B) (Notes A) | $R_{\theta JA}$ | 430 325 | $^{\circ}C/W$ |
| Operating Junction and Storage Temperature Range | T_J | -55 to +150 | $^{\circ}C$ |

NOTES : A. Mounted on 100cm²(1mm thick) copper areas.

B. Mounted on a FR4 PCB, single-sided copper, mini pad.

MMSZ5221B ~ MMSZ5267B Series

| Part Number | Nominal Zener Voltage | | | Max. Zener Impedance | | | | Max Reverse Leakage Current | | Marking Code |
|-------------|----------------------------------|--------|--------|-----------------------------------|-----|-----------------------------------|------|---------------------------------|------|--------------|
| | V _Z @ I _{ZT} | | | Z _{ZT} @ I _{ZT} | | Z _{ZK} @ I _{ZK} | | I _R @ V _R | | |
| | Nom. V | Min. V | Max. V | Ω | mA | Ω | mA | μA | V | |
| MMSZ5221B | 2.4 | 2.28 | 2.52 | 30 | 20 | 1200 | 0.25 | 100 | 1 | C1 |
| MMSZ5222B | 2.5 | 2.38 | 2.63 | 30 | 20 | 1250 | 0.25 | 100 | 1 | C2 |
| MMSZ5223B | 2.7 | 2.57 | 2.84 | 30 | 20 | 1300 | 0.25 | 75 | 1 | C3 |
| MMSZ5224B | 2.8 | 2.66 | 2.94 | 30 | 20 | 1400 | 0.25 | 75 | 1 | C4 |
| MMSZ5225B | 3 | 2.85 | 3.15 | 30 | 20 | 1600 | 0.25 | 50 | 1 | C5 |
| MMSZ5226B | 3.3 | 3.14 | 3.47 | 28 | 20 | 1600 | 0.25 | 25 | 1 | D1 |
| MMSZ5227B | 3.6 | 3.42 | 3.78 | 24 | 20 | 1700 | 0.25 | 15 | 1 | D2 |
| MMSZ5228B | 3.9 | 3.71 | 4.1 | 23 | 20 | 1900 | 0.25 | 10 | 1 | D3 |
| MMSZ5229B | 4.3 | 4.09 | 4.52 | 22 | 20 | 2000 | 0.25 | 5 | 1 | D4 |
| MMSZ5230B | 4.7 | 4.47 | 4.94 | 19 | 20 | 1900 | 0.25 | 5 | 2 | D5 |
| MMSZ5231B | 5.1 | 4.85 | 5.36 | 17 | 20 | 1600 | 0.25 | 5 | 2 | E1 |
| MMSZ5232B | 5.6 | 5.32 | 5.88 | 11 | 20 | 1600 | 0.25 | 5 | 3 | E2 |
| MMSZ5233B | 6.0 | 5.70 | 6.30 | 7 | 20 | 1600 | 0.25 | 5 | 3.5 | E3 |
| MMSZ5234B | 6.2 | 5.89 | 6.51 | 7 | 20 | 1000 | 0.25 | 5 | 4 | E4 |
| MMSZ5235B | 6.8 | 6.46 | 7.14 | 5 | 20 | 750 | 0.25 | 3 | 5 | E5 |
| MMSZ5236B | 7.5 | 7.13 | 7.88 | 6 | 20 | 500 | 0.25 | 3 | 6 | F1 |
| MMSZ5237B | 8.2 | 7.79 | 8.61 | 8 | 20 | 500 | 0.25 | 3 | 6 | F2 |
| MMSZ5238B | 8.7 | 8.27 | 9.14 | 8 | 20 | 600 | 0.25 | 3 | 6.5 | F3 |
| MMSZ5239B | 9.1 | 8.65 | 9.56 | 10 | 20 | 600 | 0.25 | 3 | 6.5 | F4 |
| MMSZ5240B | 10 | 9.5 | 10.5 | 17 | 20 | 600 | 0.25 | 3 | 8 | F5 |
| MMSZ5241B | 11 | 10.45 | 11.55 | 22 | 20 | 600 | 0.25 | 2 | 8.4 | H1 |
| MMSZ5242B | 12 | 11.4 | 12.6 | 30 | 20 | 600 | 0.25 | 1 | 9.1 | H2 |
| MMSZ5243B | 13 | 12.35 | 13.65 | 13 | 9.5 | 600 | 0.25 | 0.5 | 9.9 | H3 |
| MMSZ5244B | 14 | 13.3 | 14.7 | 15 | 9 | 600 | 0.25 | 0.1 | 10.5 | H4 |
| MMSZ5245B | 15 | 14.25 | 15.75 | 16 | 8.5 | 600 | 0.25 | 0.1 | 11 | H5 |
| MMSZ5246B | 16 | 15.2 | 16.8 | 17 | 7.8 | 600 | 0.25 | 0.1 | 12 | J1 |
| MMSZ5247B | 17 | 16.15 | 17.85 | 19 | 7.5 | 600 | 0.25 | 0.1 | 13 | J2 |
| MMSZ5248B | 18 | 17.1 | 18.9 | 21 | 7 | 600 | 0.25 | 0.1 | 14 | J3 |
| MMSZ5249B | 19 | 18.05 | 19.95 | 23 | 6.6 | 600 | 0.25 | 0.1 | 14 | J4 |
| MMSZ5250B | 20 | 19 | 21 | 25 | 6.2 | 600 | 0.25 | 0.1 | 15 | J5 |
| MMSZ5251B | 22 | 20.9 | 23.1 | 29 | 5.6 | 600 | 0.25 | 0.1 | 17 | K1 |
| MMSZ5252B | 24 | 22.8 | 25.2 | 33 | 5.2 | 600 | 0.25 | 0.1 | 18 | K2 |
| MMSZ5253B | 25 | 23.75 | 26.25 | 35 | 5.0 | 600 | 0.25 | 0.1 | 19 | K3 |
| MMSZ5254B | 27 | 25.65 | 28.35 | 41 | 5 | 600 | 0.25 | 0.1 | 21 | K4 |
| MMSZ5255B | 28 | 26.6 | 29.4 | 44 | 4.5 | 600 | 0.25 | 0.1 | 21 | K5 |
| MMSZ5256B | 30 | 28.5 | 31.5 | 49 | 4.2 | 600 | 0.25 | 0.1 | 23 | M1 |
| MMSZ5257B | 33 | 31.35 | 34.65 | 58 | 3.8 | 700 | 0.25 | 0.1 | 25 | M2 |
| MMSZ5258B | 36 | 34.2 | 37.8 | 70 | 3.4 | 700 | 0.25 | 0.1 | 27 | M3 |
| MMSZ5259B | 39 | 37.05 | 40.95 | 80 | 3.2 | 800 | 0.25 | 0.1 | 30 | M4 |
| MMSZ5260B | 43 | 40.85 | 45.15 | 93 | 3 | 900 | 0.25 | 0.1 | 33 | M5 |
| MMSZ5261B | 47 | 44.65 | 49.35 | 105 | 2.7 | 1000 | 0.25 | 0.1 | 36 | N1 |
| MMSZ5262B | 51 | 48.45 | 53.55 | 125 | 2.5 | 1100 | 0.25 | 0.1 | 39 | N2 |

MMSZ5221B ~ MMSZ5267B Series

| Part Number | Nominal Zener Voltage | | | Max. Zener Impedance | | | | Max Reverse Leakage Current | | Marking Code |
|-------------|----------------------------------|--------|--------|-----------------------------------|-----|-----------------------------------|------|---------------------------------|----|--------------|
| | V _Z @ I _{ZT} | | | Z _{ZT} @ I _{ZT} | | Z _{ZK} @ I _{ZK} | | I _R @ V _R | | |
| | Nom. V | Min. V | Max. V | Ω | mA | Ω | mA | μA | V | |
| MMSZ5263B | 56 | 53.2 | 58.8 | 150 | 2.2 | 1300 | 0.25 | 0.1 | 43 | N3 |
| MMSZ5264B | 60 | 57 | 63 | 170 | 2.1 | 1400 | 0.25 | 0.1 | 46 | N4 |
| MMSZ5265B | 62 | 58.9 | 65.1 | 185 | 2 | 1500 | 0.25 | 0.1 | 47 | N5 |
| MMSZ5266B | 68 | 64.6 | 71.4 | 230 | 1.8 | 1600 | 0.25 | 0.1 | 52 | P1 |
| MMSZ5267B | 75 | 71.25 | 78.75 | 270 | 1.7 | 1400 | 0.25 | 0.1 | 56 | P2 |

MMSZ5221B ~ MMSZ5267B Series



Fig.1 TEMPERATURE COEFFICIENTS



Fig.2 TEMPERATURE COEFFICIENTS

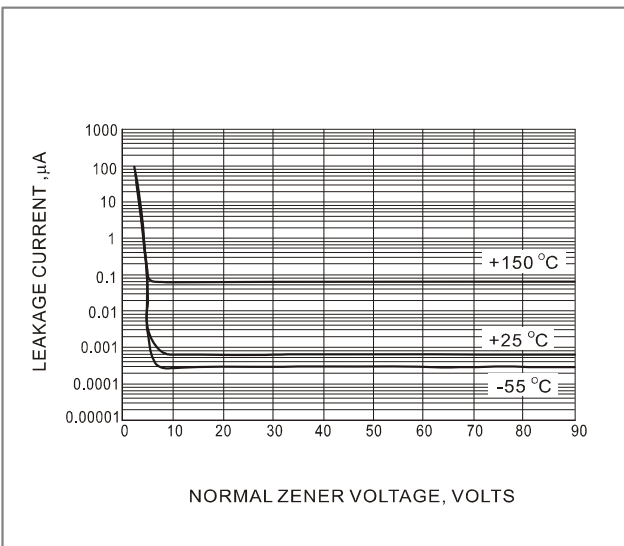


Fig.3 TYPICAL LEAKAGE CURRENT

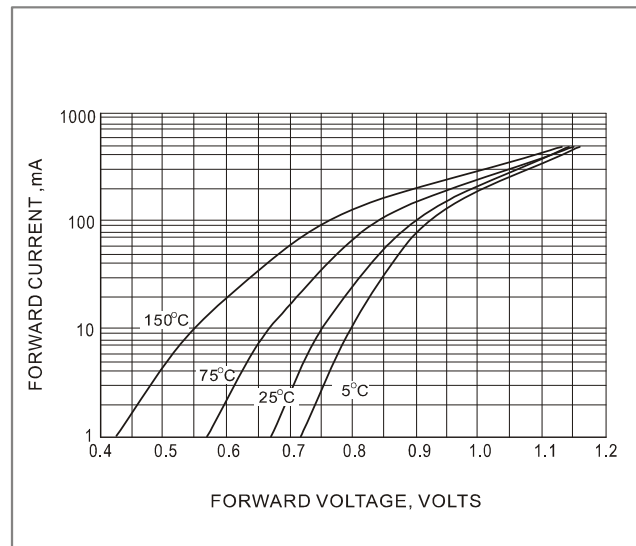


Fig.4 TYPICAL FORWARD VOLTAGE

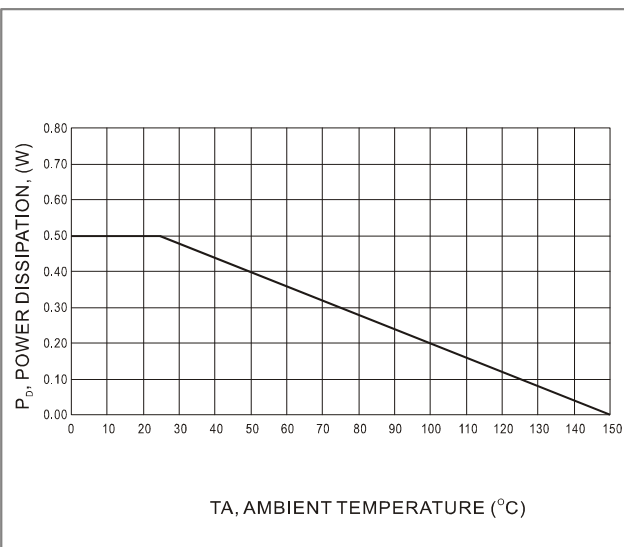


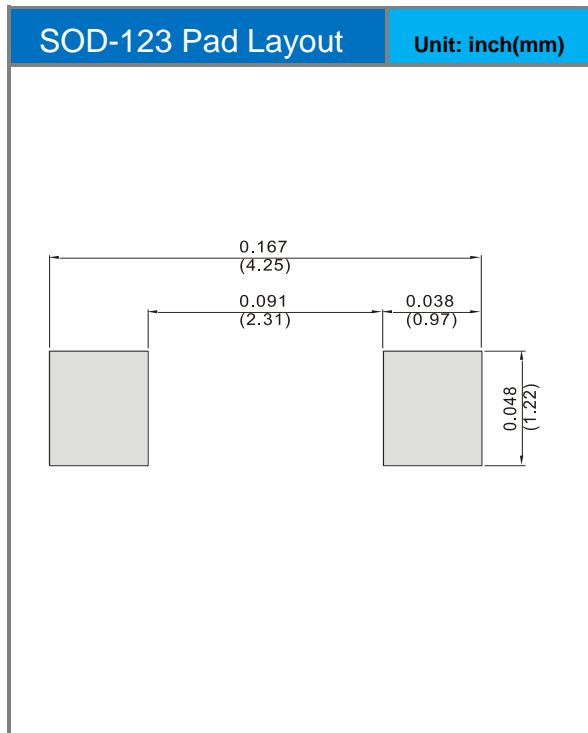
Fig.5 POWER DERATING CURVE

MMSZ5221B ~ MMSZ5267B Series

Product and Packing Information

| Part No. | Package Type | Packing Type | Marking |
|-----------|--------------|------------------|-----------|
| MMSZ52xxB | SOD-123 | 3K pcs / 7" reel | See Table |

Mounting Pad Layout





MMSZ5221B ~ MMSZ5267B Series

Disclaimer

- Reproducing and modifying information of the document is prohibited without permission from Panjit International Inc..
- Panjit International Inc. reserves the rights to make changes of the content herein the document anytime without notification. Please refer to our website for the latest document.
- Panjit International Inc. disclaims any and all liability arising out of the application or use of any product including damages incidentally and consequentially occurred.
- Panjit International Inc. does not assume any and all implied warranties, including warranties of fitness for particular purpose, non-infringement and merchantability.
- Applications shown on the herein document are examples of standard use and operation. Customers are responsible in comprehending the suitable use in particular applications. Panjit International Inc. makes no representation or warranty that such applications will be suitable for the specified use without further testing or modification.
- The products shown herein are not designed and authorized for equipments requiring high level of reliability or relating to human life and for any applications concerning life-saving or life-sustaining, such as medical instruments, transportation equipment, aerospace machinery et cetera. Customers using or selling these products for use in such applications do so at their own risk and agree to fully indemnify Panjit International Inc. for any damages resulting from such improper use or sale.
- Since Panjit uses lot number as the tracking base, please provide the lot number for tracking when complaining.

Looking for pricing, stock, or lifecycle information?

Click below to explore more details on WIN SOURCE:

-  [View MMSZ5256B_R1_00001 on WIN SOURCE](#)
-  [Panjit Information](#)

Optimize Your Supply Chain with WIN SOURCE Solutions

-  Global Sourcing Solution
-  Obsolete Management
-  Cost Control Management
-  Shortage Management
-  Alternative Solution
-  Excess Inventory Management