

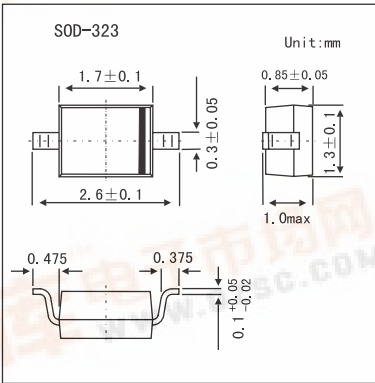
SMD Type

Diodes

Surface Mount Zener Diodes  
MMSZ5221BS - MMSZ5260BS

Features

- Ultra-Small Surface Mount Package
- Planar Die Construction
- General Purpose



Absolute Maximum Ratings (Ta = 25℃)

| Parameter                                   | Symbol | Rating      | Unit |
|---------------------------------------------|--------|-------------|------|
| Power dissipation                           | P      | 200         | mW   |
| Thermal Resistance, Junction to Ambient Air | RθJA   | 625         | ℃/W  |
| Forward Voltage @ If = 10mA                 | VF     | 0.9         | V    |
| Jumction temperature                        | Tj     | 150         | ℃    |
| Storage temperature                         | Tstg   | -65 to +150 | ℃    |

## MMSZ5221BS - MMSZ5260BS

## ■ Electrical Characteristics (Ta = 25°C)

| Type       | Zener voltage<br>Vz (V) |       |       |             | Maximum Zener<br>Impedance |                             | Maximum Reverse<br>Leakage Current |          | Marking |
|------------|-------------------------|-------|-------|-------------|----------------------------|-----------------------------|------------------------------------|----------|---------|
|            | Nom.                    | Min.  | Max.  | IzT<br>(mA) | ZzT @ IzT<br>(Ω)           | Zzk @ IzK<br>=0.25mA<br>(Ω) | IR<br>(μA)                         | @ VR (V) |         |
| MMSZ5221BS | 2.4                     | 2.28  | 2.52  | 20          | 30                         | 1200                        | 100                                | 1        | C1      |
| MMSZ5223BS | 2.7                     | 2.57  | 2.84  | 20          | 30                         | 1300                        | 75                                 | 1        | C3      |
| MMSZ5225BS | 3.0                     | 2.85  | 3.15  | 20          | 30                         | 1600                        | 50                                 | 1        | C5      |
| MMSZ5226BS | 3.3                     | 3.14  | 3.47  | 20          | 28                         | 1600                        | 25                                 | 1        | G1      |
| MMSZ5227BS | 3.6                     | 3.42  | 3.78  | 20          | 24                         | 1700                        | 15                                 | 1        | G2      |
| MMSZ5228BS | 3.9                     | 3.71  | 4.10  | 20          | 23                         | 1900                        | 10                                 | 1        | G3      |
| MMSZ5229BS | 4.3                     | 4.09  | 4.52  | 20          | 22                         | 2000                        | 5                                  | 1        | G4      |
| MMSZ5230BS | 4.7                     | 4.47  | 4.94  | 20          | 19                         | 1900                        | 5                                  | 2        | G5      |
| MMSZ5231BS | 5.1                     | 4.85  | 5.36  | 20          | 17                         | 1600                        | 5                                  | 2        | E1      |
| MMSZ5232BS | 5.6                     | 5.32  | 5.88  | 20          | 11                         | 1600                        | 5                                  | 3        | E2      |
| MMSZ5233BS | 6.0                     | 5.70  | 6.30  | 20          | 7                          | 1600                        | 5                                  | 3.5      | E3      |
| MMSZ5234BS | 6.2                     | 5.89  | 6.51  | 20          | 7                          | 1000                        | 5                                  | 4        | E4      |
| MMSZ5235BS | 6.8                     | 6.46  | 7.14  | 20          | 5                          | 750                         | 3                                  | 5        | E5      |
| MMSZ5236BS | 7.5                     | 7.13  | 7.88  | 20          | 6                          | 500                         | 3                                  | 6        | F1      |
| MMSZ5237BS | 8.2                     | 7.79  | 8.61  | 20          | 8                          | 500                         | 3                                  | 6.5      | F2      |
| MMSZ5238BS | 8.7                     | 8.27  | 9.14  | 20          | 8                          | 600                         | 3                                  | 6.5      | F3      |
| MMSZ5239BS | 9.1                     | 8.65  | 9.56  | 20          | 10                         | 600                         | 3                                  | 7        | F4      |
| MMSZ5240BS | 10                      | 9.50  | 10.50 | 20          | 17                         | 600                         | 3                                  | 8        | F5      |
| MMSZ5241BS | 11                      | 10.45 | 11.55 | 20          | 22                         | 600                         | 2                                  | 8.4      | H1      |
| MMSZ5242BS | 12                      | 11.40 | 12.60 | 20          | 30                         | 600                         | 1                                  | 9.1      | H2      |
| MMSZ5243BS | 13                      | 12.35 | 13.65 | 9.5         | 13                         | 600                         | 0.5                                | 9.9      | H3      |
| MMSZ5245BS | 15                      | 14.25 | 15.75 | 8.5         | 16                         | 600                         | 0.1                                | 11       | H5      |
| MMSZ5246BS | 16                      | 15.20 | 16.80 | 7.8         | 17                         | 600                         | 0.1                                | 12       | J1      |
| MMSZ5248BS | 18                      | 17.10 | 18.90 | 7.0         | 21                         | 600                         | 0.1                                | 14       | J3      |
| MMSZ5250BS | 20                      | 19.00 | 21.00 | 6.2         | 25                         | 600                         | 0.1                                | 15       | J5      |
| MMSZ5251BS | 22                      | 20.90 | 23.10 | 5.6         | 29                         | 600                         | 0.1                                | 17       | K1      |
| MMSZ5252BS | 24                      | 22.80 | 25.20 | 5.2         | 33                         | 600                         | 0.1                                | 18       | K2      |
| MMSZ5254BS | 27                      | 25.65 | 28.35 | 4.6         | 41                         | 600                         | 0.1                                | 21       | K4      |
| MMSZ5255BS | 28                      | 26.60 | 29.40 | 4.5         | 44                         | 600                         | 0.1                                | 21       | K5      |
| MMSZ5256BS | 30                      | 28.50 | 31.50 | 4.2         | 49                         | 600                         | 0.1                                | 23       | M1      |
| MMSZ5257BS | 33                      | 31.35 | 34.65 | 3.8         | 58                         | 700                         | 0.1                                | 25       | M2      |
| MMSZ5258BS | 36                      | 34.20 | 37.80 | 3.4         | 70                         | 700                         | 0.1                                | 27       | M3      |
| MMSZ5259BS | 39                      | 37.05 | 40.95 | 3.2         | 80                         | 800                         | 0.1                                | 30       | M4      |
| MMSZ5260BS | 43                      | 40.85 | 45.15 | 3.0         | 93                         | 900                         | 0.1                                | 33       | M5      |