

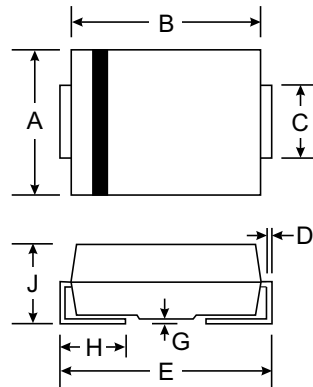
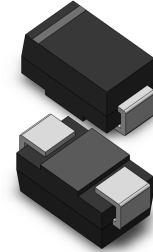
VOLTAGE RANGE: 10 - 68V
POWER: 1.5Watts

Features

- Glass passivated
- High maximum operating temperature
- Low leakage current
- Excellent stability
- UL 94V-O classified plastic package
- Zener working voltage range: 10 to 68 V for 21 types
- Supplied in 12 mm embossed tape.

Mechanical Data

- Case: SMA/DO-214AC, Molded Plastic
- Terminals: Solder Plated, Solderable per MIL-STD-750, Method 2026
- Polarity: Cathode Band or Cathode Notch
- Marking: Type Number
- Weight: 0.064 grams (approx.)



| SMA(DO-214AC) | | |
|----------------------|------|------|
| Dim | Min | Max |
| A | 2.29 | 2.92 |
| B | 4.00 | 4.60 |
| C | 1.27 | 1.63 |
| D | 0.15 | 0.31 |
| E | 4.80 | 5.59 |
| G | 0.10 | 0.20 |
| H | 0.76 | 1.52 |
| J | 2.01 | 2.62 |
| All Dimensions in mm | | |

Maximum Ratings $T_A = 25^\circ\text{C}$ unless otherwise specified

| SYMBOL | PARAMETER | CONDITIONS | MIN. | MAX. | UNIT |
|-----------|---|---|------|------|------------------|
| P_{tot} | total power dissipation | $T_{tp} = 75^\circ\text{C}$; see Fig.2 | – | 4.0 | W |
| | | $T_{amb} = 25^\circ\text{C}$; see Fig.2; device mounted on an Al_2O_3 printed-circuit board; see Fig.5 | – | 1.5 | W |
| P_{ZSM} | non-repetitive peak reverse power dissipation | $t_p = 100 \mu\text{s}$; square pulse; $T_j = 25^\circ\text{C}$ prior to surge; see Fig.3 | – | 600 | W |
| T_{stg} | storage temperature | | –65 | +175 | $^\circ\text{C}$ |
| T_j | junction temperature | | –65 | +175 | $^\circ\text{C}$ |



ELECTRICAL CHARACTERISTICS

Total series

T_j = 25 °C unless otherwise specified.

| SYMBOL | PARAMETER | CONDITIONS | MAX. | UNIT |
|----------------|-----------------|------------------------|------|------|
| V _F | forward voltage | I _F = 0.5 A | 1.2 | V |

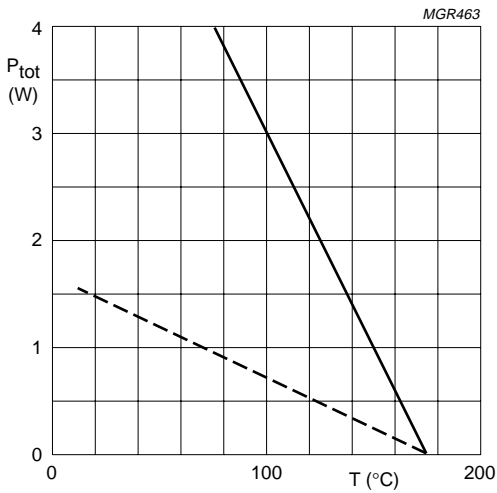
Per type

T_j = 25 °C unless otherwise specified.

| DEVICE | NOMINAL ZENER VOLTAGE | TEST CURRENT | ZENER IMPEDANCE (max) | | | REVERSE LEAKAGE CURRENT (max) | | |
|-----------|--------------------------------------|----------------------|---------------------------------------|---------------------|----------------------|-------------------------------|--------------------|---|
| | V _Z @ I _{ZT} (V) | I _{ZT} (mA) | Z _{ZT} @ I _{ZT} (Ω) | Z _{ZK} (Ω) | I _{ZK} (mA) | I _R (μA) | V _R (V) | Max DC Zener Current I _{ZM} (mAdc) |
| PSMA5925B | 10 | 37.5 | 4.5 | 500 | 0.25 | 10.0 | 8.0 | 150 |
| PSMA5926B | 11 | 34.1 | 5.5 | 550 | 0.25 | 4.0 | 8.4 | 136 |
| PSMA5927B | 12 | 31.2 | 6.5 | 550 | 0.25 | 3.0 | 9.1 | 125 |
| PSMA5928B | 13 | 28.8 | 8.0 | 600 | 0.25 | 1.0 | 9.9 | 115 |
| PSMA5929B | 15 | 25.0 | 9.0 | 650 | 0.25 | 0.5 | 11.4 | 100 |
| PSMA5930B | 16 | 23.4 | 10 | 650 | 0.25 | 0.5 | 12.2 | 94 |
| PSMA5931B | 18 | 20.8 | 12 | 650 | 0.25 | 0.5 | 13.7 | 83 |
| PSMA5932B | 20 | 18.7 | 14 | 650 | 0.25 | 0.5 | 15.2 | 75 |
| PSMA5933B | 22 | 17.0 | 17.5 | 650 | 0.25 | 0.5 | 16.7 | 68 |
| PSMA5934B | 24 | 15.6 | 19 | 700 | 0.25 | 0.5 | 18.2 | 63 |
| PSMA5935B | 27 | 13.9 | 23 | 700 | 0.25 | 0.5 | 20.6 | 56 |
| PSMA5936B | 30 | 12.5 | 26 | 750 | 0.25 | 0.5 | 22.8 | 50 |
| PSMA5937B | 33 | 11.4 | 33 | 800 | 0.25 | 0.5 | 25.1 | 45 |
| PSMA5938B | 36 | 10.4 | 38 | 850 | 0.25 | 0.5 | 27.4 | 42 |
| PSMA5939B | 39 | 9.6 | 45 | 900 | 0.25 | 0.5 | 29.7 | 38 |
| PSMA5940B | 43 | 8.7 | 53 | 950 | 0.25 | 0.5 | 32.7 | 35 |
| PSMA5941B | 47 | 8.0 | 67 | 1000 | 0.25 | 0.5 | 35.8 | 32 |
| PSMA5942B | 51 | 7.3 | 70 | 1100 | 0.25 | 0.5 | 38.8 | 29 |
| PSMA5943B | 56 | 6.7 | 86 | 1300 | 0.25 | 0.5 | 42.6 | 27 |
| PSMA5944B | 62 | 6.0 | 100 | 1500 | 0.25 | 0.5 | 47.1 | 24 |
| PSMA5945B | 68 | 5.5 | 120 | 1700 | 0.25 | 0.5 | 51.7 | 22 |

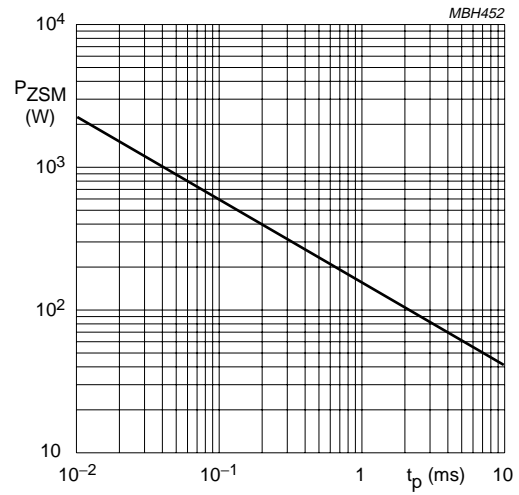
Note

1. Tolerance and Voltage Designation: Tolerance designation - The type number listed indicates a tolerance of ±5%.



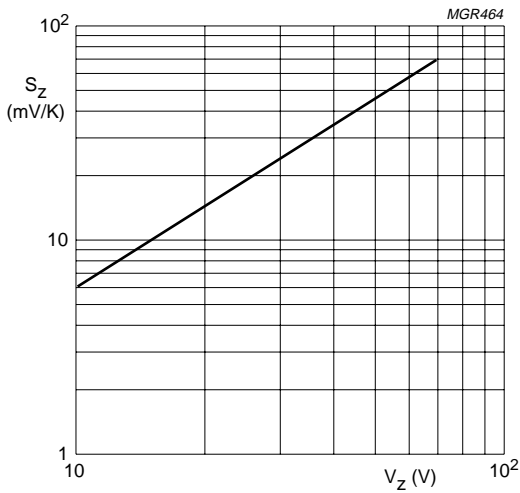
Solid line: tie-point temperature.
Dotted line: ambient temperature; device mounted on an Al₂O₃ printed-circuit board as shown in Fig.5.

Fig.2 Maximum total power dissipation as a function of temperature.



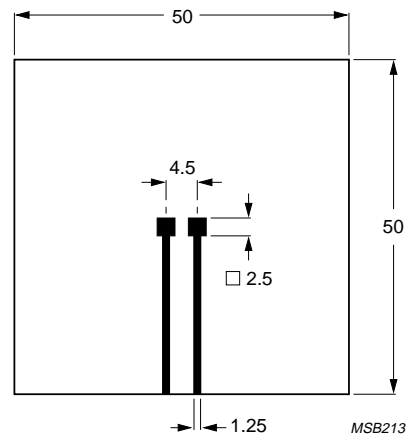
T_j = 25 °C prior to surge.

Fig.3 Maximum non-repetitive peak reverse power dissipation as a function of pulse duration (square pulse).



V_z at I_{ZT}.

Fig.4 Temperature coefficient as a function of zener voltage; typical values.



Dimensions in mm.

Fig.5 Printed-circuit board for surface mounting.