

# MM1W3V3S~MM1W47S-HAF

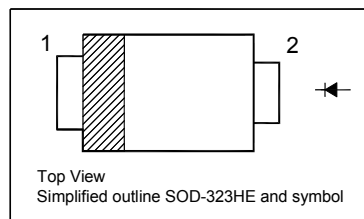
## Silicon Planar Zener Diodes

### Features

- Total power dissipation: Max.1 W
- Small plastic package suitable for surface mounted design
- Halogen and Antimony Free(HAF), RoHS compliant

### PINNING

| PIN | DESCRIPTION |
|-----|-------------|
| 1   | Cathode     |
| 2   | Anode       |



### Absolute Maximum Ratings ( $T_a = 25^\circ\text{C}$ )

| Parameter                               | Symbol         | Value         | Unit             |
|-----------------------------------------|----------------|---------------|------------------|
| Power Dissipation                       | $P_D$          | 1             | W                |
| Operating and Storage Temperature Range | $T_J, T_{stg}$ | - 55 to + 150 | $^\circ\text{C}$ |

### Characteristics at $T_a = 25^\circ\text{C}$

| Parameter                                   | Symbol | Max. | Unit |
|---------------------------------------------|--------|------|------|
| Forward Voltage<br>at $I_F = 200\text{ mA}$ | $V_F$  | 1.2  | V    |

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Dated: 21/03/2015 Rev: 01

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## Characteristics at $T_a = 25^\circ\text{C}$

| Type     | Marking Code | Zener Voltage Range |          |             | Dynamic Impedance |             | Reverse Current        |          |
|----------|--------------|---------------------|----------|-------------|-------------------|-------------|------------------------|----------|
|          |              | $V_{ZT}$            |          | at $I_{ZT}$ | $Z_{ZT}$          | at $I_{ZT}$ | $I_R$                  | at $V_R$ |
|          |              | Min. (V)            | Max. (V) | (mA)        | Max. ( $\Omega$ ) | (mA)        | Max. ( $\mu\text{A}$ ) | (V)      |
| MM1W3V3S | GA           | 3.1                 | 3.5      | 100         | 8                 | 100         | 150                    | 1        |
| MM1W3V6S | GB           | 3.4                 | 3.8      | 100         | 8                 | 100         | 100                    | 1        |
| MM1W3V9S | GC           | 3.7                 | 4.1      | 100         | 8                 | 100         | 50                     | 1        |
| MM1W4V3S | GD           | 4                   | 4.6      | 100         | 7                 | 100         | 25                     | 1        |
| MM1W4V7S | GE           | 4.4                 | 5        | 100         | 7                 | 100         | 10                     | 1        |
| MM1W5V1S | GF           | 4.8                 | 5.4      | 100         | 6                 | 100         | 5                      | 1        |
| MM1W5V6S | GG           | 5.2                 | 6        | 100         | 4                 | 100         | 10                     | 2        |
| MM1W6V2S | GH           | 5.8                 | 6.6      | 100         | 3                 | 100         | 5                      | 2        |
| MM1W6V8S | GJ           | 6.4                 | 7.2      | 100         | 3                 | 100         | 10                     | 3        |
| MM1W7V5S | GK           | 7                   | 7.9      | 100         | 2                 | 100         | 50                     | 3        |
| MM1W8V2S | GL           | 7.7                 | 8.7      | 100         | 2                 | 100         | 10                     | 3        |
| MM1W9V1S | GM           | 8.5                 | 9.6      | 50          | 4                 | 50          | 10                     | 5        |
| MM1W10S  | GN           | 9.4                 | 10.6     | 50          | 4                 | 50          | 7                      | 7.5      |
| MM1W11S  | GP           | 10.4                | 11.6     | 50          | 7                 | 50          | 4                      | 8.2      |
| MM1W12S  | GQ           | 11.4                | 12.7     | 50          | 7                 | 50          | 3                      | 9.1      |
| MM1W13S  | GR           | 12.4                | 14.1     | 50          | 10                | 50          | 2                      | 10       |
| MM1W15S  | GS           | 13.8                | 15.6     | 50          | 10                | 50          | 1                      | 11       |
| MM1W16S  | GT           | 15.3                | 17.1     | 25          | 15                | 25          | 1                      | 12       |
| MM1W18S  | GU           | 16.8                | 19.1     | 25          | 15                | 25          | 1                      | 13       |
| MM1W20S  | GV           | 18.8                | 21.2     | 25          | 15                | 25          | 1                      | 15       |
| MM1W22S  | GW           | 20.8                | 23.3     | 25          | 15                | 25          | 1                      | 16       |
| MM1W24S  | GX           | 22.8                | 25.6     | 25          | 15                | 25          | 1                      | 18       |
| MM1W27S  | GY           | 25.1                | 28.9     | 25          | 15                | 25          | 1                      | 20       |
| MM1W30S  | GZ           | 28                  | 32       | 25          | 15                | 25          | 1                      | 22       |
| MM1W33S  | HS           | 31                  | 35       | 25          | 15                | 25          | 1                      | 24       |
| MM1W36S  | HT           | 34                  | 38       | 10          | 40                | 10          | 1                      | 27       |
| MM1W39S  | HU           | 37                  | 41       | 10          | 40                | 10          | 1                      | 30       |
| MM1W43S  | HV           | 40                  | 46       | 10          | 45                | 10          | 1                      | 33       |
| MM1W47S  | HW           | 44                  | 50       | 10          | 45                | 10          | 1                      | 36       |

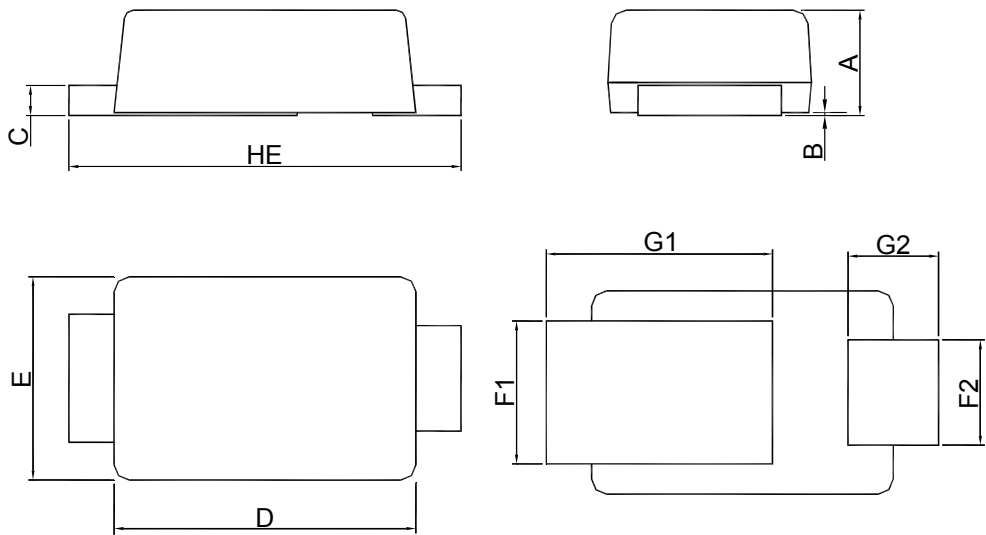
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## PACKAGE OUTLINE

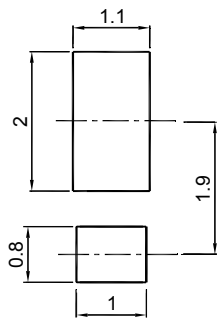
Plastic surface mounted package; 2 leads

SOD-323HE



| UNIT | A   | B    | C   | D   | E    | F1   | F2  | G1  | G2  | H <sub>E</sub> |
|------|-----|------|-----|-----|------|------|-----|-----|-----|----------------|
| mm   | 0.7 | 0.02 | 0.2 | 2   | 1.35 | 0.95 | 0.7 | 1.5 | 0.6 | 2.6            |
|      | 0.5 | 0    | 0.1 | 1.8 | 1.15 | 0.75 | 0.5 | 1.3 | 0.4 | 2.4            |

## RECOMMENDED SOLDERING FOOTPRINT



SOD-323HE

## Packing information

| Package   | Tape Width (mm) | Pitch   |               | Reel Size |      | Per Reel Packing Quantity |
|-----------|-----------------|---------|---------------|-----------|------|---------------------------|
|           |                 | mm      | inch          | mm        | inch |                           |
| SOD-323HE | 8               | 4 ± 0.1 | 0.157 ± 0.004 | 178       | 7    | 3,000                     |

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