



Micro Commercial Components



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# DFLZ5V1 THRU DFLZ100

## 1 Watt Zener Diode 5.1V - 100V Volts

### Features

- Halogen free available upon request by adding suffix "-HF"
- 1.0W Power Dissipation
- High surge capability with 200W minimum peak pulse power under 10/1000 pulse
- Ideally Suited for Automatic Assembly
- Standard VZ Tolerance is +/- 5%
- Epoxy meets UL 94 V-0 flammability rating
- Moisture Sensitivity Level 1
- Lead Free Finish/Rohs Compliant (Note1) ("P" Suffix designates Compliant. See ordering information)

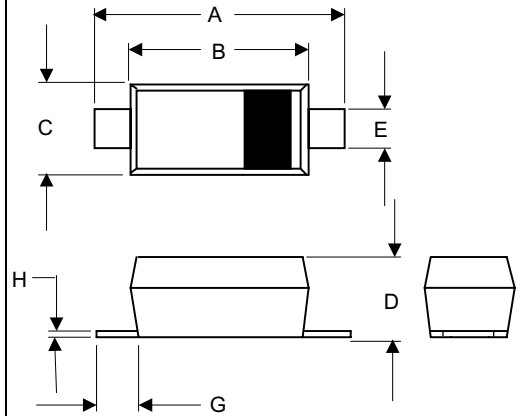
### Maximum Ratings

- Storage Temperature Range( $T_{STG}$ ): -55°C to +150°C
- Operating Temperature Range( $T_i$ ): -55°C to +150°C

|  | Symbol     | Value     | Units |
|--|------------|-----------|-------|
| Zener Current                              | $I_{ZM}$   | $P_d/V_z$ | mA    |
| Power Dissipation @ $T_A=50^\circ\text{C}$ | $P_{tot}$  | 1000      | mW    |
| Forward Voltage @ $I_f = 200\text{mA}$     | VF         | 1.2       | V     |
| Junction to Soldering Point                | $R_{thJS}$ | 9         | °C/W  |
| Thermal resistance                         | $R_{thJA}$ | 110       | °C/W  |

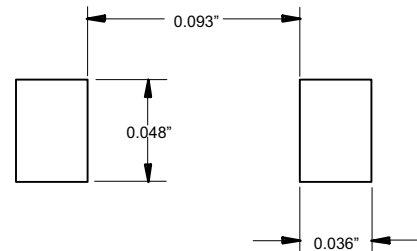
Note :1.High Temperature Solder Exemptions Applied,See EU Directive Annex 7.

### SOD-123FL



| DIM | INCHES |       | MM   |       | NOTE |
|-----|--------|-------|------|-------|------|
|     | MIN    | MAX   | MIN  | MAX   |      |
| A   | .140   | .152  | 3.55 | 3.85  |      |
| B   | .100   | .122  | 2.55 | 3.10  |      |
| C   | .055   | .075  | 1.40 | 1.90  |      |
| D   | .035   | .053  | 0.90 | 1.35  |      |
| E   | .020   | .041  | 0.50 | 1.05  |      |
| G   | .010   | ----- | 0.25 | ----- |      |
| H   | -----  | .010  | ---- | .25   |      |

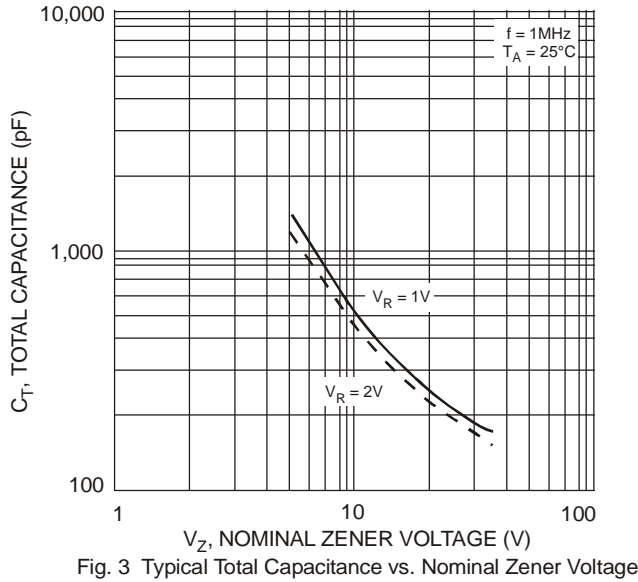
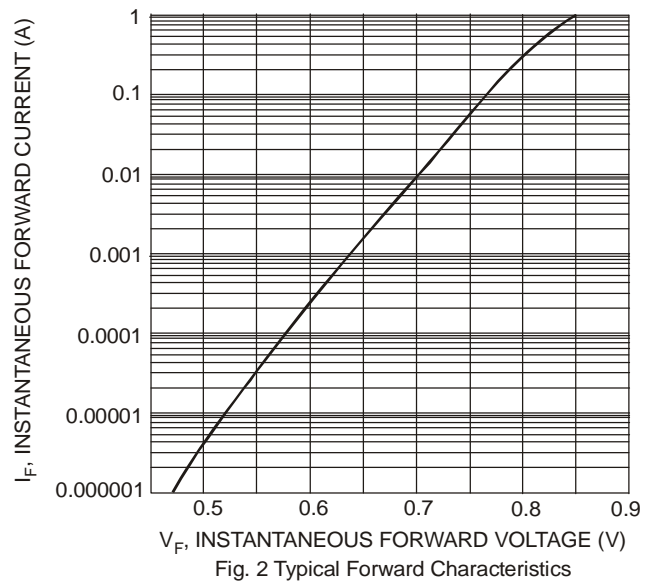
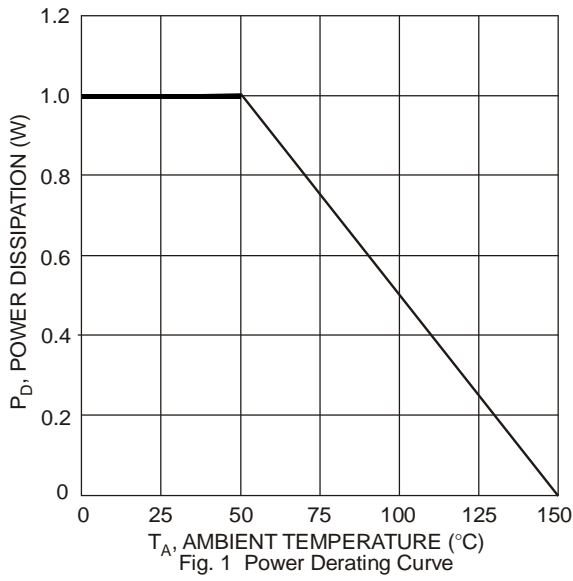
### SUGGESTED SOLDER PAD LAYOUT



**Electrical Characteristics @ 25°C Unless Otherwise Specified**

| Part Number | Zener Voltage<br>$V_Z$<br>Voltages |      |       |                     | Maximum<br>Zener<br>Impedance<br>$Z_{ZT}@I_{ZT}$ | Reverse Current<br>$I_R(\text{Max}) @ V_R$ |                 | Marking |
|-------------|------------------------------------|------|-------|---------------------|--|--|-----------------|---------|
|             | Nom                                | Min  | Max   | $I_{ZT}(\text{mA})$ |  | $I_R(\mu\text{A})$                         | $V_R(\text{V})$ |         |
| DFLZ5V1     | 5.1                                | 4.8  | 5.4   | 49                  | 7  | 10   | 1.0             | 5V1     |
| DFLZ5V6     | 5.6                                | 5.3  | 5.9   | 45                  | 5  | 10   | 2.0             | 5V6     |
| DFLZ6V2     | 6.2                                | 5.8  | 6.4   | 100                 | 3  | 5  | 2.0             | 6V2     |
| DFLZ6V8     | 6.8                                | 6.4  | 7.2   | 100                 | 3  | 5  | 3.0             | 6V8     |
| DFLZ7V5     | 7.5                                | 7.0  | 7.9   | 100                 | 2  | 5  | 3.0             | 7V5     |
| DFLZ8V2     | 8.2                                | 7.7  | 8.7   | 100                 | 2  | 5  | 3.0             | 8V2     |
| DFLZ9V1     | 9.1                                | 8.5  | 9.6   | 50                  | 4  | 5  | 5.0             | 9V1     |
| DFLZ10      | 10                                 | 9.4  | 10.6  | 50                  | 4  | 5  | 7.5             | Z10     |
| DFLZ11      | 11                                 | 10.4 | 11.6  | 50                  | 7  | 4  | 8.2             | Z11     |
| DFLZ12      | 12                                 | 11.4 | 12.7  | 50                  | 7  | 3  | 9.1             | Z12     |
| DFLZ13      | 13                                 | 12.4 | 14.1  | 50                  | 10   | 2  | 10.0            | Z13     |
| DFLZ15      | 15                                 | 13.8 | 15.6  | 50                  | 10   | 1  | 11.0            | Z15     |
| DFLZ16      | 16                                 | 15.3 | 17.1  | 25                  | 15   | 1  | 12.0            | Z16     |
| DFLZ18      | 18                                 | 16.8 | 19.1  | 25                  | 15   | 1  | 13.0            | Z18     |
| DFLZ20      | 20                                 | 18.8 | 21.2  | 25                  | 15   | 1  | 15.0            | Z20     |
| DFLZ22      | 22                                 | 20.8 | 23.3  | 25                  | 15   | 1  | 16.0            | Z22     |
| DFLZ24      | 24                                 | 22.8 | 25.6  | 25                  | 15   | 1  | 18.0            | Z24     |
| DFLZ27      | 27                                 | 25.1 | 28.9  | 25                  | 15   | 1  | 20.0            | Z27     |
| DFLZ30      | 30                                 | 28.0 | 32.0  | 25                  | 15   | 1  | 22.0            | Z30     |
| DFLZ33      | 33                                 | 31.0 | 35.0  | 25                  | 15   | 1  | 24.0            | Z33     |
| DFLZ36      | 36                                 | 34.0 | 38.0  | 10                  | 40   | 1  | 27.0            | Z36     |
| DFLZ39      | 39                                 | 37.0 | 41.0  | 10                  | 40   | 1  | 30.0            | Z39     |
| DFLZ43      | 43                                 | 40.8 | 45.2  | 6.0                 | 70   | 5  | 32.7            | Z43     |
| DFLZ47      | 47                                 | 44.6 | 49.4  | 5.5                 | 80   | 5  | 35.8            | Z47     |
| DFLZ51      | 51                                 | 48.4 | 53.6  | 5.0                 | 95   | 5  | 38.8            | Z51     |
| DFLZ56      | 56                                 | 53.2 | 58.8  | 4.5                 | 110  | 5  | 42.6            | Z56     |
| DFLZ62      | 62                                 | 58.9 | 65.1  | 4.0                 | 125  | 5  | 47.1            | Z62     |
| DFLZ68      | 68                                 | 64.6 | 71.4  | 3.7                 | 150  | 5  | 51.7            | Z68     |
| DFLZ75      | 75                                 | 71.2 | 78.8  | 3.3                 | 175  | 5  | 56.0            | Z75     |
| DFLZ82      | 82                                 | 77.9 | 86.1  | 3.0                 | 200  | 5  | 62.2            | Z82     |
| DFLZ91      | 91                                 | 86.4 | 95.6  | 2.8                 | 250  | 5  | 69.2            | Z91     |
| DFLZ100     | 100                                | 95.0 | 105.0 | 2.5                 | 350  | 5  | 76.0            | Z100    |

Notes: 1. Short duration pulse test used to minimize self-heating effect.





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## Ordering Information :

| Device         | Packing                 |
|----------------|-------------------------|
| Part Number-TP | Tape&Reel: 2.5Kpcs/Reel |

Note : Adding "-HF" suffix for halogen free, eg. Part Number-TP-HF

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#### Как с нами связаться

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