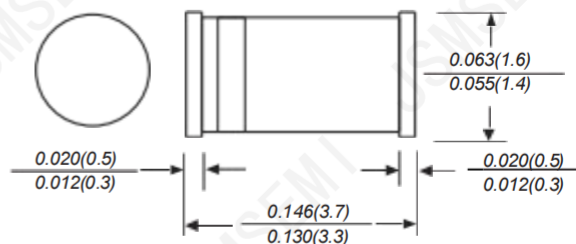


## FEATURE

In MiniMELF case especially for automatic insertion.



**LL-34**

Dimensions in inches and (millimeters)

## MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

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

| Parameter                 | Symbol           | Value             | Unit             |
|---------------------------|------------------|-------------------|------------------|
| Power Dissipation         | $P_{\text{tot}}$ | 500 <sup>1)</sup> | mW               |
| Junction Temperature      | $T_j$            | 175               | $^\circ\text{C}$ |
| Storage Temperature Range | $T_{\text{stg}}$ | - 55 to + 175     | $^\circ\text{C}$ |

<sup>1)</sup> Valid provided that electrodes are kept at ambient temperature

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

| Parameter                                  | Symbol          | Max.              | Unit |
|--------------------------------------------|-----------------|-------------------|------|
| Thermal Resistance Junction to Ambient Air | $R_{\theta JA}$ | 0.3 <sup>1)</sup> | K/mW |
| Forward Voltage at $I_F = 100\text{ mA}$   | $V_F$           | 1                 | V    |

<sup>1)</sup> Valid provided that electrodes are kept at ambient temperature

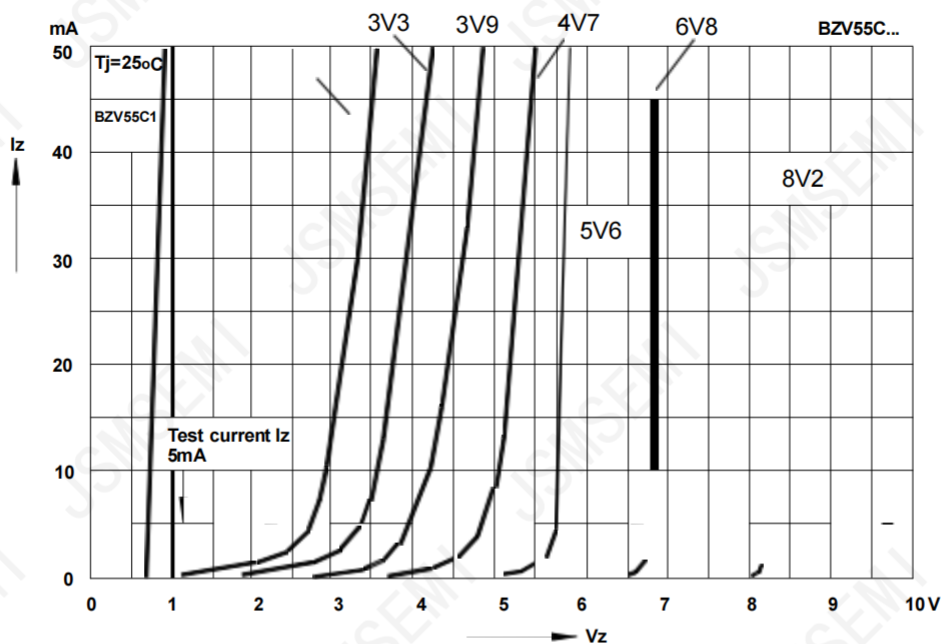
**Electrical Characteristics@AT=25°C unless otherwise specified**

| Type           | Zener Voltage Range(1) |             |        | Dynamic Resistance |        |        | Reverse Leakage Curent |           |       | Temp.Coefficientof<br>Zener Voltage |
|----------------|------------------------|-------------|--------|--------------------|--------|--------|------------------------|-----------|-------|-------------------------------------|
|                | VZnom                  | VZ          | at IZT | ZZT                | ZZK    | at IZK | Ta=25℃                 | Ta=125℃   | at VR |                                     |
|                | (V)                    | (V)         | (mA)   | Max. (2)           | Max(2) | (mA)   | Max(μA)                | Max. (μA) | (V)   |                                     |
| BZV55-C2V0,115 | 2                      | 1.8...215   | 5      | 85                 | 600    | 1      | 100                    | 200       | 1     | -0.09...-0.06                       |
| BZV55-C2V2,115 | 2.2                    | 2.08...2.33 | 5      | 85                 | 600    | 1      | 75                     | 160       | 1     | -0.09...-0.06                       |
| BZV55-C2V4,115 | 2.4                    | 2.28...2.56 | 5      | 85                 | 600    | 1      | 50                     | 100       | 1     | -0.09...-0.06                       |
| BZV55-C2V7,115 | 2.7                    | 2.5...2.9   | 5      | 85                 | 600    | 1      | 10                     | 50        | 1     | -0.09...-0.06                       |
| BZV55-C3V0,115 | 3                      | 2.8...3.2   | 5      | 85                 | 600    | 1      | 4                      | 40        | 1     | -0.08...-0.05                       |
| BZV55-C3V3,115 | 3.3                    | 3.1...35    | 5      | 85                 | 600    | 1      | 2                      | 40        | 1     | -0.08...-0.05                       |
| BZV55-C3V6,115 | 3.6                    | 3.4...3.8   | 5      | 85                 | 600    | 1      | 2                      | 40        | 1     | -0.08...-0.05                       |
| BZV55-C3V9,115 | 3.9                    | 3.7...4.1   | 5      | 85                 | 600    | 1      | 2                      | 40        | 1     | -0.08...-0.05                       |
| BZV55-C4V3,115 | 4.3                    | 4...4.6     | 5      | 75                 | 600    | 1      | 1                      | 20        | 1     | -0.06.0.03                          |
| BZV55-C4V7,115 | 4.7                    | 4.4...5     | 5      | 60                 | 600    | 1      | 0.5                    | 10        | 1     | -0.05...+0.02                       |
| BZV55-C5V1,115 | 5.1                    | 4.8...5.4   | 5      | 35                 | 550    | 1      | 0.1                    | 2         | 1     | -0.02+0.02                          |
| BZV55-C5V6,115 | 5.6                    | 5.2...6     | 5      | 25                 | 450    | 1      | 0.1                    | 2         | 1     | -0.05...+0.05                       |
| BZV55-C6V2,115 | 6.2                    | 5.8...6.6   | 5      | 10                 | 200    | 1      | 0.1                    | 2         | 2     | 0.03...0.06                         |
| BZV55-C6V8,115 | 6.8                    | 6.4...7.2   | 5      | 8                  | 150    | 1      | 0.1                    | 2         | 3     | 0.03...0.07                         |
| BZV55-C7V5,115 | 7.5                    | 7.7...9     | 5      | 7                  | 50     | 1      | 0.1                    | 2         | 5     | 0.03...0.07                         |
| BZV55-C8V2,115 | 8.2                    | 7.7...8.7   | 5      | 7                  | 50     | 1      | 0.1                    | 2         | 6.2   | 0.03...0.08                         |
| BZV55-C9V1,115 | 9.1                    | 8.5...9.6   | 5      | 10                 | 50     | 1      | 0.1                    | 2         | 6.8   | 0.03...0.09                         |
| BZV55-C10,115  | 10                     | 9.4...10.6  | 5      | 15                 | 70     | 1      | 0.1                    | 2         | 7.5   | 0.03.0.1                            |
| BZV55-C11,115  | 11                     | 10.4...11.6 | 5      | 20                 | 70     | 1      | 0.1                    | 2         | 8.2   | 0.03...0.11                         |
| BZV55-C12,115  | 12                     | 11.4...12.7 | 5      | 20                 | 90     | 1      | 0.1                    | 2         | 9.1   | 0.03...0.11                         |
| BZV55-C13,115  | 13                     | 12.4...14.1 | 5      | 26                 | 110    | 1      | 0.1                    | 2         | 10    | 0.03...0.11                         |
| BZV55-C15,115  | 15                     | 13.8...15.6 | 5      | 30                 | 110    | 1      | 0.1                    | 2         | 11    | 0.03...0.11                         |
| BZV55-C16,115  | 16                     | 15.3...17.1 | 5      | 40                 | 170    | 1      | 0.1                    | 2         | 12    | 0.03...0.11                         |
| BZV55-C18,115  | 18                     | 16.8.19.1   | 5      | 50                 | 170    | 1      | 0.1                    | 2         | 13    | 0.03...0.11                         |
| BZV55-C20,115  | 20                     | 18.8...21.2 | 5      | 55                 | 220    | 1      | 0.1                    | 2         | 15    | 0.03...0.11                         |
| BZV55-C22,115  | 22                     | 20.8...23.3 | 5      | 55                 | 220    | 1      | 0.1                    | 2         | 16    | 0.04...0.12                         |
| BZV55-C24,115  | 24                     | 22.8...25.6 | 5      | 80                 | 220    | 1      | 0.1                    | 2         | 18    | 0.04...0.12                         |
| BZV55-C27,115  | 27                     | 25.1...28.9 | 5      | 80                 | 220    | 1      | 0.1                    | 2         | 20    | 0.04...0.12                         |
| BZV55-C30,115  | 30                     | 28...32     | 5      | 80                 | 220    | 1      | 0.1                    | 2         | 22    | 0.04...0.12                         |
| BZV55-C33,115  | 33                     | 31...35     | 5      | 80                 | 220    | 1      | 0.1                    | 2         | 24    | 0.04...0.12                         |
| BZV55-C36,115  | 36                     | 34...38     | 5      | 80                 | 220    | 1      | 0.1                    | 2         | 27    | 0.04...0.12                         |
| BZV55-C39,115  | 39                     | 37...41     | 2.5    | 90                 | 500    | 0.5    | 0.1                    | 5         | 30    | 0.04...0.12                         |
| BZV55-C43,115  | 43                     | 40...46     | 2.5    | 90                 | 500    | 0.5    | 0.1                    | 5         | 33    | 0.04...0.12                         |
| BZV55-C47,115  | 47                     | 44...50     | 2.5    | 110                | 600    | 0.5    | 0.1                    | 5         | 36    | 0.04...0.12                         |
| BZV55-C51,115  | 51                     | 48...54     | 2.5    | 125                | 700    | 0.5    | 0.1                    | 10        | 39    | 0.04...0.12                         |
| BZV55-C56,115  | 56                     | 52...6      | 2.5    | 135                | 700    | 0.5    | 0.1                    | 10        | 43    | 0.04...0.12                         |
| BZV55-C62,115  | 62                     | 58...66     | 2.5    | 150                | 1000   | 0.5    | 0.1                    | 10        | 47    | 0.04...0.12                         |
| BZV55-C68,115  | 68                     | 64...72     | 2.5    | 200                | 1000   | 0.5    | 0.1                    | 10        | 51    | 0.04...0.12                         |
| BZV55-C75,115  | 75                     | 70...79     | 2.5    | 250                | 1000   | 0.5    | 0.1                    | 10        | 56    | 0.04...0.12                         |

Notes: 1. Tested with pulses  $t_p = 20$  ms.  
 2. Valid provided that electrodes are kept at ambient temperature.

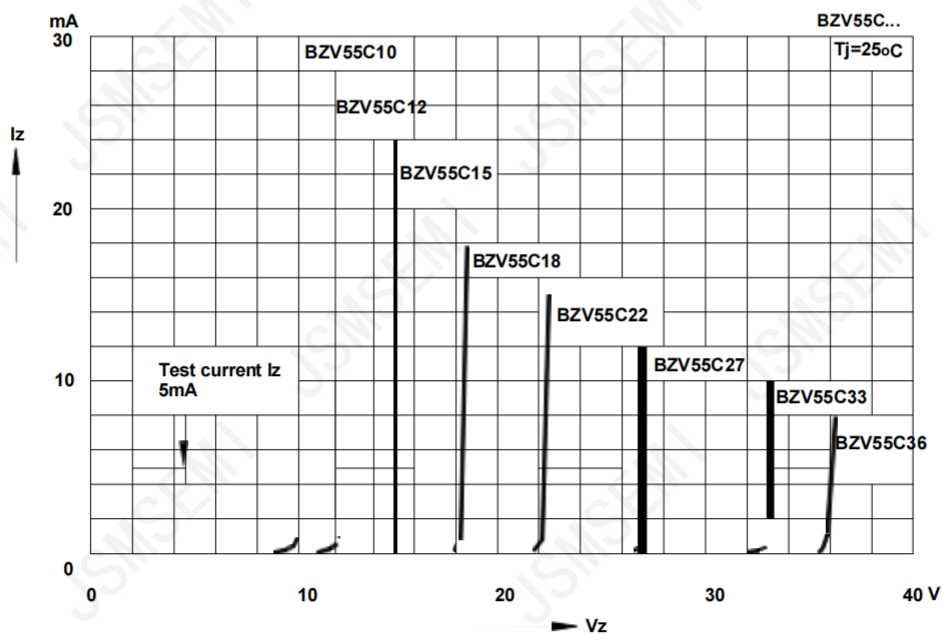
**Breakdown characteristics**

$T_J = \text{constant}$  (pulsed)

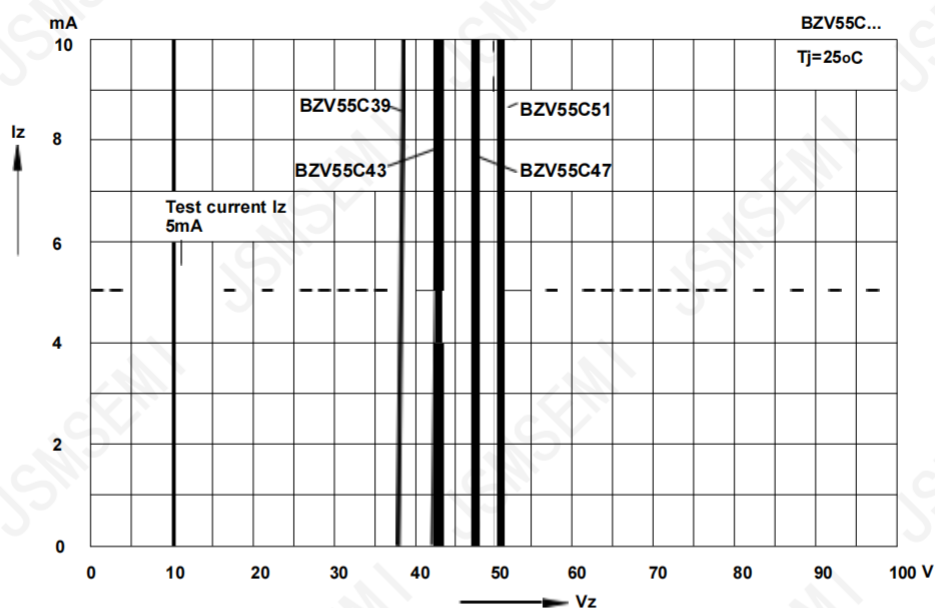


**Breakdown characteristics**

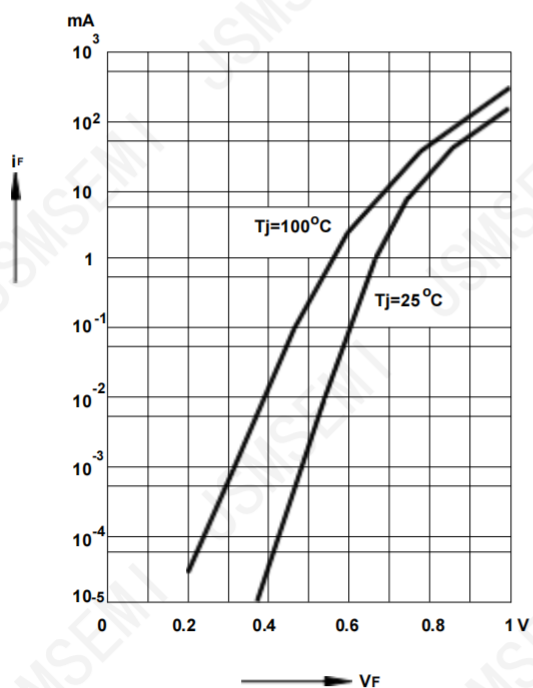
$T_J = \text{constant}$  (pulsed)



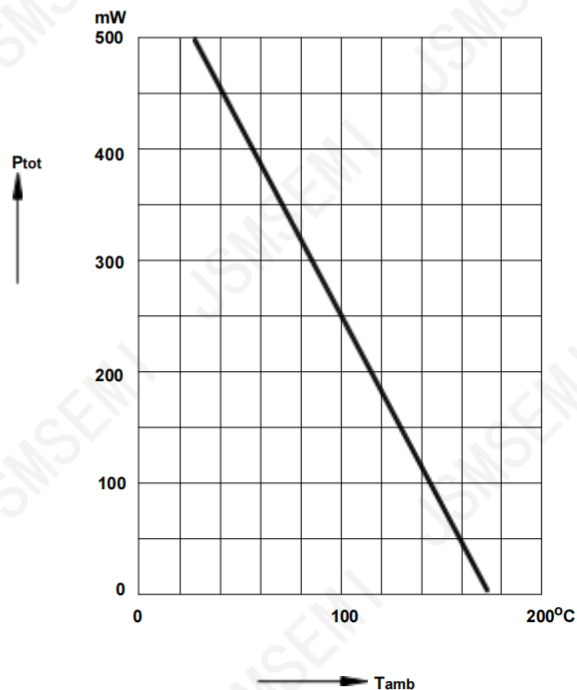
**Breakdown characteristics**  
 $T_j = \text{constant (pulsed)}$



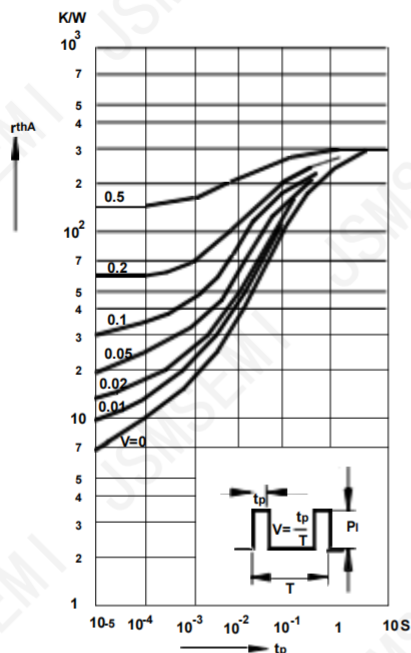
**Forward characteristics**



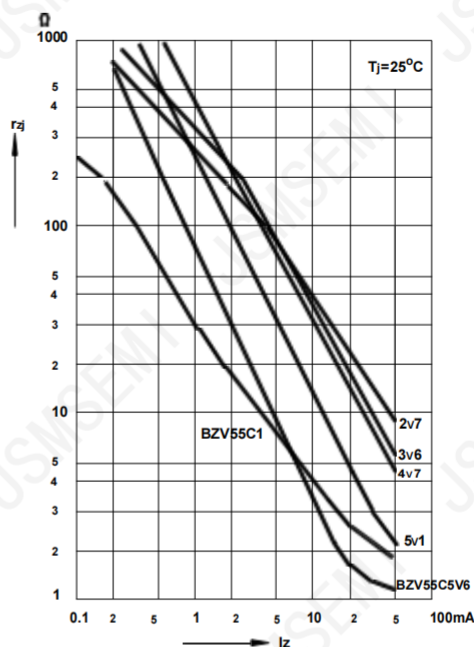
**Admissible power dissipation versus ambient temperature**  
Valid provided that electrodes are kept at ambient temperature.



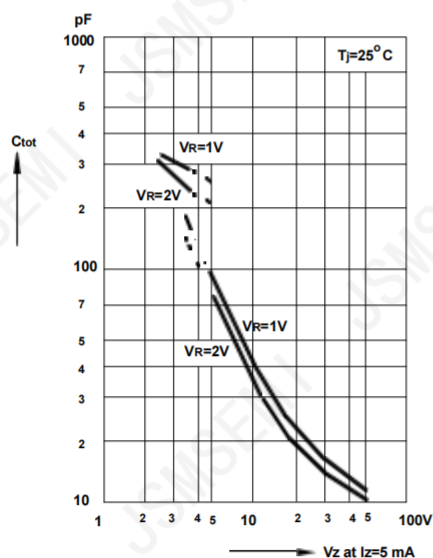
**Pulse thermal resistance  
versus pulse duration**  
Valid provided that the electrodes are kept  
at ambient temperature.



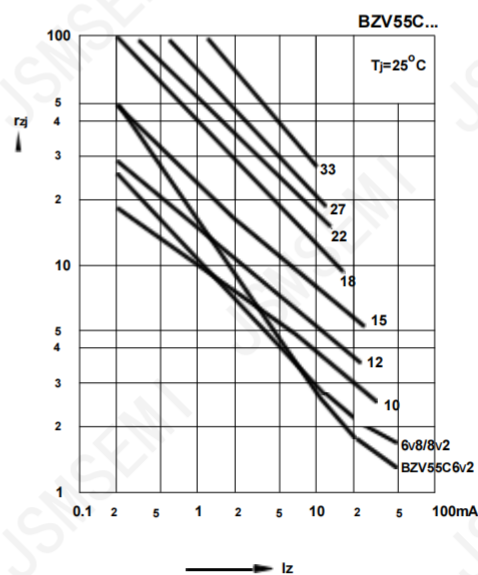
**Dynamic resistance  
versus Zener current**

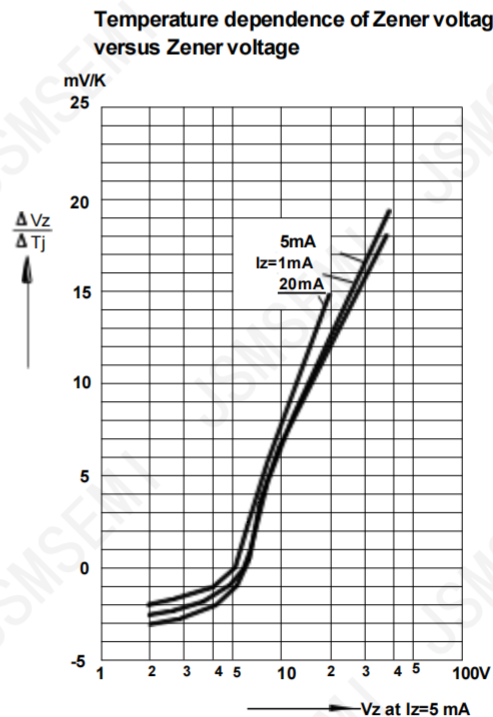
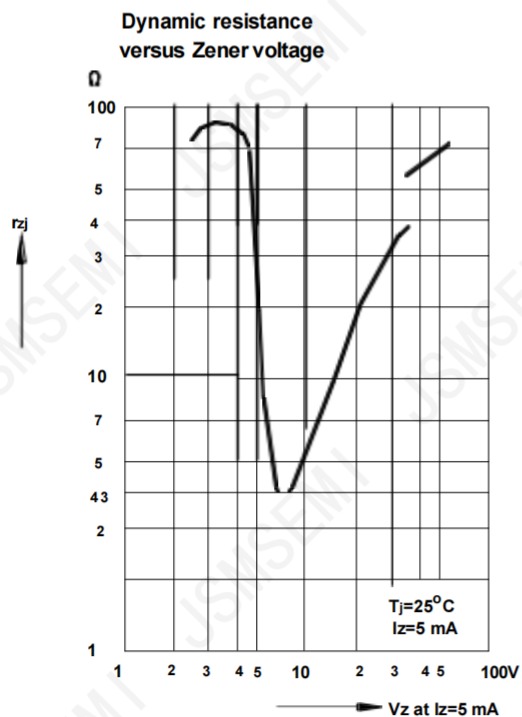
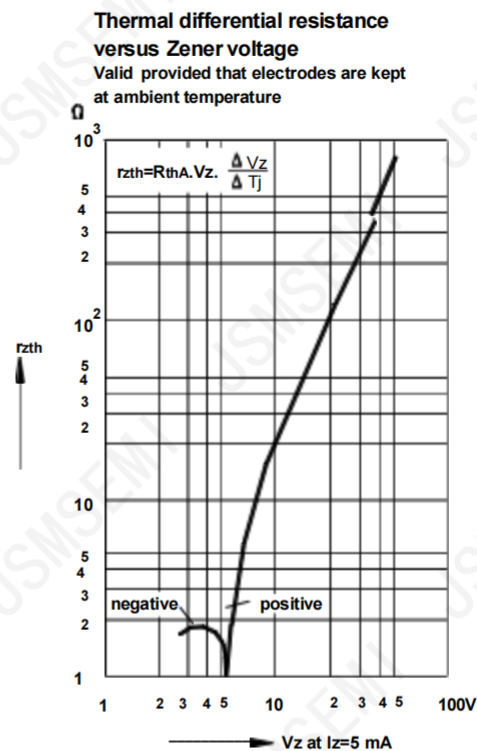
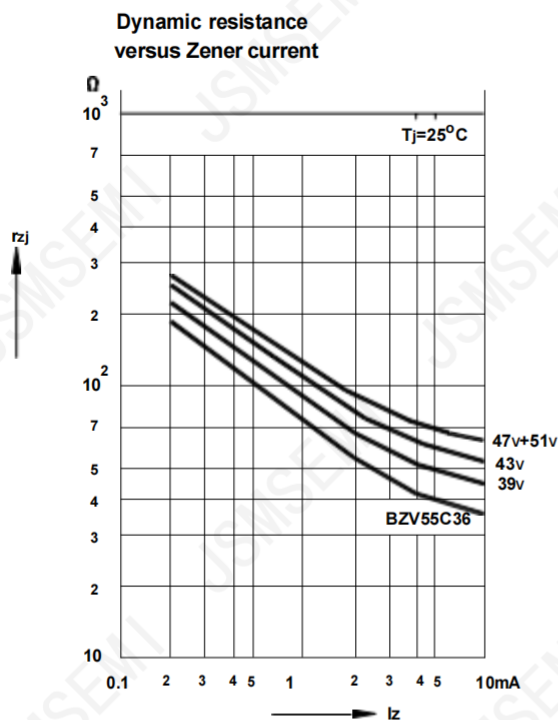


**Capacitance versus  
Zener voltage**

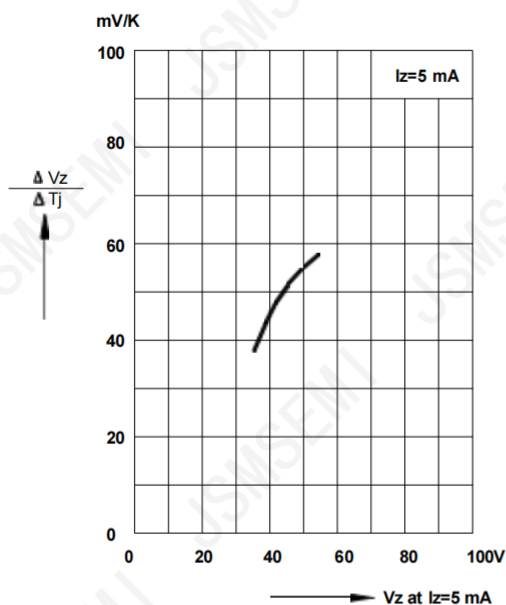


**Dynamic resistance  
versus Zener current**

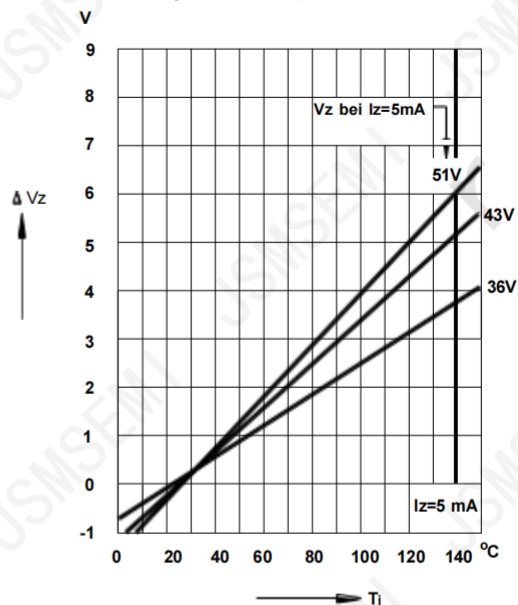




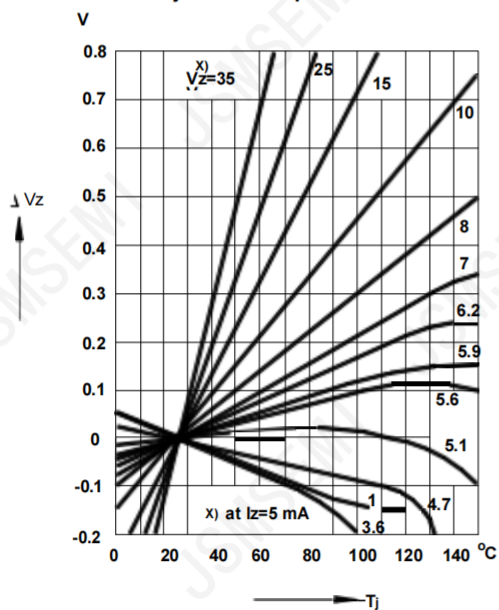
Temperature dependence of Zener voltage  
versus Zener voltage



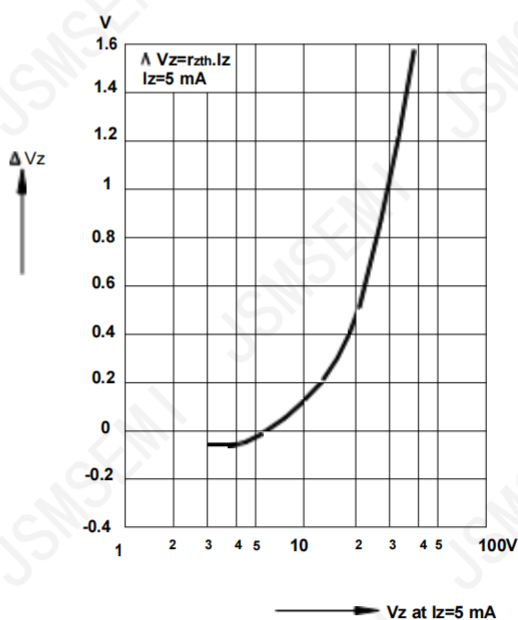
Change of Zener voltage  
versus junction temperature



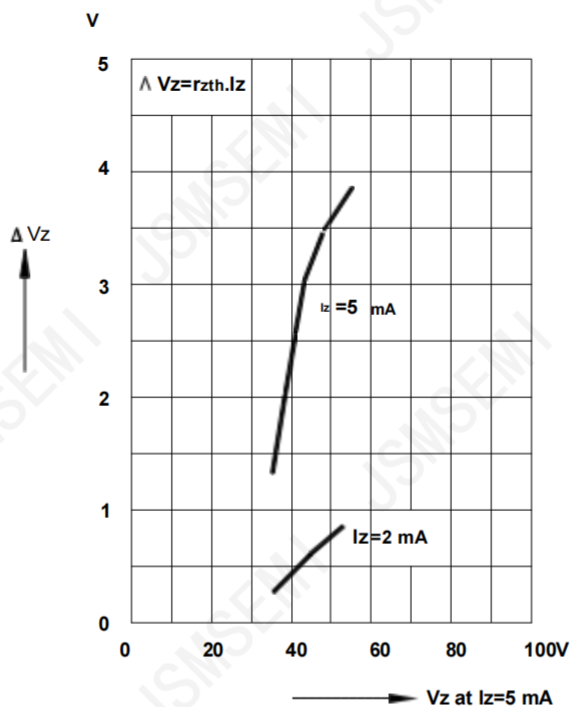
Change of Zener voltage  
versus junction temperature



Change of Zener voltage from turn-on  
up to the point of thermal equilibrium  
versus Zener voltage



Change of Zener voltage from turn-on  
up to the point of thermal equilibrium  
versus Zener voltage



## Revision History

| Rev. | Change          | Date      |
|------|-----------------|-----------|
| V1.0 | Initial version | 2/23/2024 |
|      |                 |           |

## Important Notice

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