

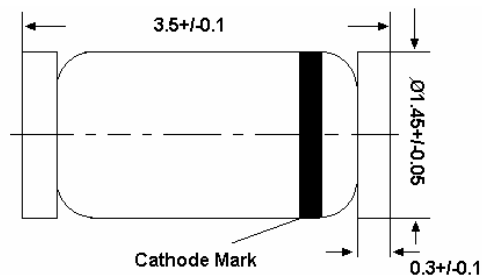
# HZK Series

## SILICON EPITAXIAL PLANAR ZENER DIODES for Stabilized Power Supply

LL-34

### Features

- LLD package is suitable for high-density surface mounting and high speed assembly.
- Low leakage, low zener impedance and maximum power dissipation of 500 mW.
- Wide spectrum from 1.9V through 38V of zener voltage provide flexible application.

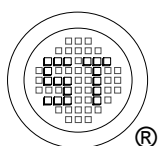


**Glass case MiniMELF**  
Dimensions in mm

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

|                           | Symbol           | Value       | Unit             |
|---------------------------|------------------|-------------|------------------|
| Power Dissipation         | $P_{\text{tot}}$ | 500         | mW               |
| Junction Temperature      | $T_j$            | 175         | $^\circ\text{C}$ |
| Storage Temperature Range | $T_s$            | -55 to +175 | $^\circ\text{C}$ |

Note: With P.C. Board.



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ISO/TS 16949 : 2002  
Certificate No. 05103



ISO 14001:2004  
Certificate No. 71116



ISO 9001:2000  
Certificate No. 0506098

Dated : 22/01/2005

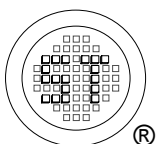
# HZK Series

## Electrical Characteristics ( $T_a = 25^\circ\text{C}$ )

| TYPE   | Zener Voltage            |      |               | Reverse Current         |              | Dynamic Resistance |               |
|--------|--------------------------|------|---------------|-------------------------|--------------|--------------------|---------------|
|        | $V_Z$ (V) <sup>(1)</sup> |      |               | $I_R$ ( $\mu\text{A}$ ) |              | $r_d$ ( $\Omega$ ) |               |
|        | Min.                     | Max. | $I_Z$<br>(mA) | Max.                    | $V_R$<br>(V) | Max.               | $I_Z$<br>(mA) |
| HZK2B  | 1.9                      | 2.3  | 5             | 5                       | 0.5          | 100                | 5             |
| HZK2C  | 2.2                      | 2.6  |               |                         |              |                    |               |
| HZK3A  | 2.5                      | 2.9  |               |                         |              |                    |               |
| HZK3B  | 2.8                      | 3.2  | 5             | 5                       | 0.5          | 100                | 5             |
| HZK3C  | 3.1                      | 3.5  |               |                         |              |                    |               |
| HZK4A  | 3.4                      | 3.8  |               |                         |              |                    |               |
| HZK4B  | 3.7                      | 4.1  | 5             | 5                       | 1.0          | 100                | 5             |
| HZK4C  | 4.0                      | 4.4  |               |                         |              |                    |               |
| HZK5A  | 4.3                      | 4.7  |               |                         |              |                    |               |
| HZK5B  | 4.6                      | 5.0  | 5             | 5                       | 1.5          | 100                | 5             |
| HZK5C  | 4.9                      | 5.3  |               |                         |              |                    |               |
| HZK6A  | 5.2                      | 5.7  |               |                         |              |                    |               |
| HZK6B  | 5.5                      | 6.0  | 5             | 5                       | 2            | 40                 | 5             |
| HZK6C  | 5.8                      | 6.4  |               |                         |              |                    |               |
| HZK7A  | 6.3                      | 6.9  |               |                         |              |                    |               |
| HZK7B  | 6.7                      | 7.3  | 5             | 1                       | 3.5          | 15                 | 5             |
| HZK7C  | 7.2                      | 7.9  |               |                         |              |                    |               |
| HZK9A  | 7.7                      | 8.5  |               |                         |              |                    |               |
| HZK9B  | 8.3                      | 9.1  | 5             | 1                       | 5            | 20                 | 5             |
| HZK9C  | 8.9                      | 9.7  |               |                         |              |                    |               |
| HZK11A | 9.5                      | 10.3 |               |                         |              |                    |               |
| HZK11B | 10.2                     | 11.1 | 5             | 1                       | 7.5          | 25                 | 5             |
| HZK11C | 10.9                     | 11.9 |               |                         |              |                    |               |
| HZK12A | 11.6                     | 12.7 |               |                         |              |                    |               |
| HZK12B | 12.4                     | 13.4 | 5             | 1                       | 9.5          | 35                 | 5             |
| HZK12C | 13.2                     | 14.3 |               |                         |              |                    |               |
| HZK15  | 14.1                     | 15.5 |               |                         |              |                    |               |
| HZK16  | 15.3                     | 17.1 | 5             | 1                       | 12           | 45                 | 5             |
| HZK18  | 16.9                     | 19.0 | 5             | 1                       | 13           | 55                 | 5             |
| HZK20  | 18.8                     | 21.1 | 2             | 1                       | 15           | 60                 | 2             |
| HZK22  | 20.9                     | 23.3 | 2             | 1                       | 17           | 65                 | 2             |
| HZK24  | 22.9                     | 25.5 | 2             | 1                       | 19           | 70                 | 2             |
| HZK27  | 25.2                     | 28.6 | 2             | 1                       | 21           | 80                 | 2             |
| HZK30  | 28.2                     | 31.6 | 2             | 1                       | 23           | 100                | 2             |
| HZK33  | 31.2                     | 34.6 | 2             | 1                       | 25           | 120                | 2             |
| HZK36  | 34.2                     | 38.0 | 2             | 1                       | 27           | 140                | 2             |

Note: 1). Tested with DC

2). Tested with pulses  $t_p = 20$  ms.



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Fig.1- Zener current versus zener voltage

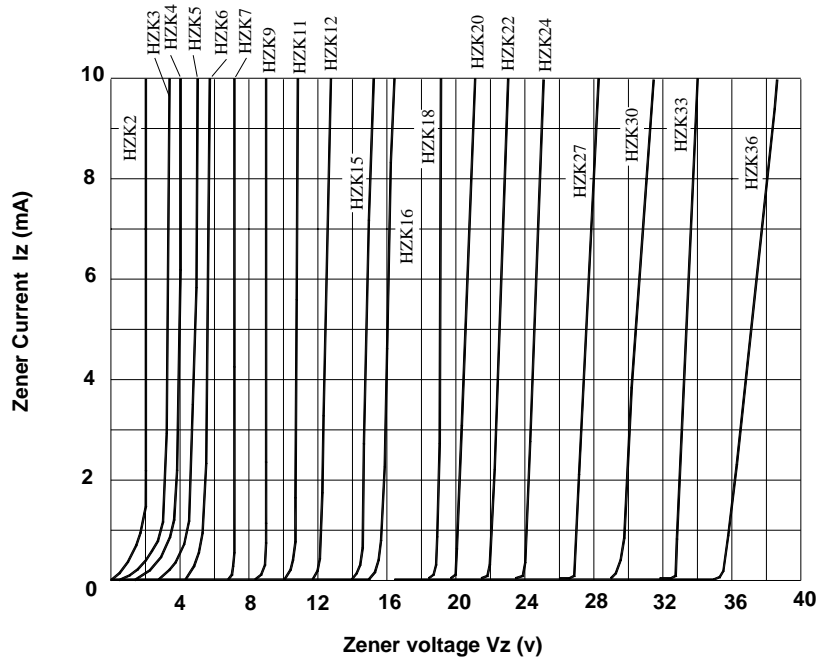


Fig.2 Temperature Coefficient Vs. Zener voltage

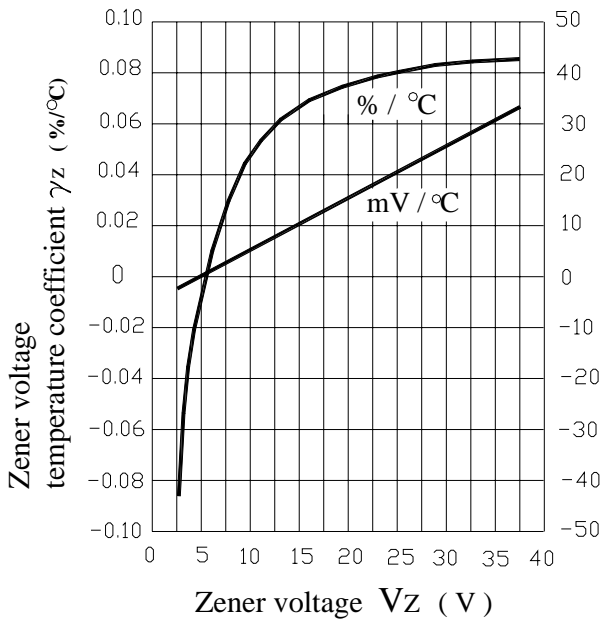
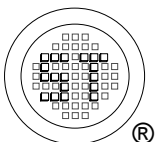
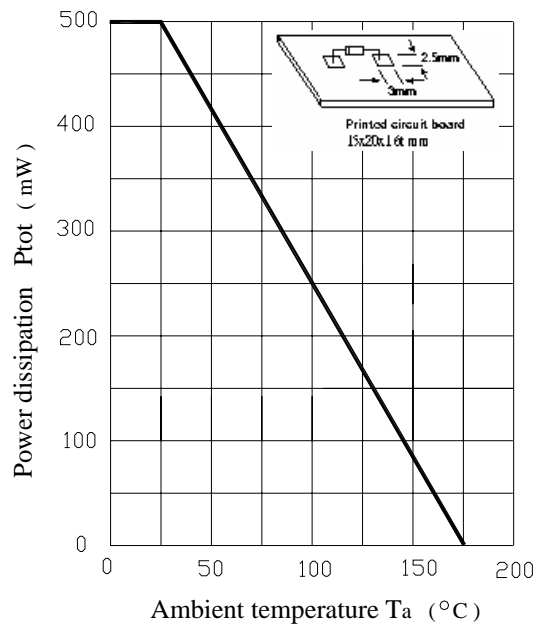


Fig. 3 Power dissipation Vs. Ambient temperature



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