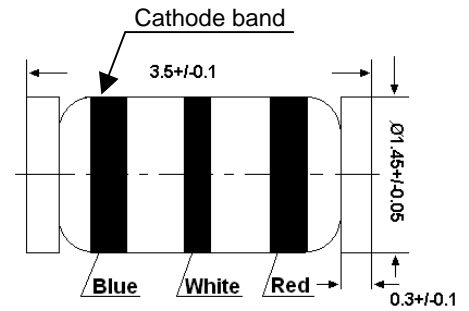


SILICON PLANAR ZENER DIODES

LL-34



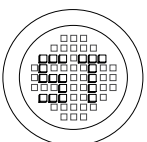
Glass case MiniMELF
Dimensions in mm

Absolute Maximum Ratings (T_a = 25°C)

| | Symbol | Value | Unit |
|---|------------------|-------------------|------|
| Zener Current see Table "Characteristics" | | | |
| Power Dissipation | P _{tot} | 500 ¹⁾ | mW |
| Junction Temperature | T _j | 175 | °C |
| Storage Temperature Range | T _s | -65 to +175 | °C |

Characteristics at T_j = 25°C

| | Symbol | Min. | Typ. | Max. | Unit |
|---|------------------|------|------|------|------|
| Thermal Resistance Junction to Ambient Air | R _{thA} | - | - | 0.3 | K/mW |



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РАДИОТЕХ

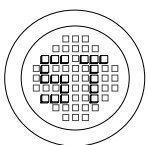
Тел.: (495) 795-0805
Факс: (495) 234-1603
Эл. почта: info@rct.ru
Веб: www.rct.ru

ZMM...HC Series

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

| TYPE | Zener Voltage | | | Dynamic Resistance | | Reverse Leakage Current (I_R at V_R) | |
|-----------|---------------|----------|---------------|--------------------|---------------|--|-----------|
| | Min. (V) | Max. (V) | I_{ZT} (mA) | Ohm at I_{ZT} | I_{ZT} (mA) | I_R (μA) Max. | V_R (V) |
| ZMM2.2HC | 2.09 | 2.41 | 20 | 120 | 20 | 120 | 0.7 |
| ZMM2.2HCA | 2.12 | 2.30 | | | | | |
| ZMM2.2HCB | 2.22 | 2.41 | | | | | |
| ZMM2.4HC | 2.30 | 2.64 | 20 | 120 | 20 | 120 | 1 |
| ZMM2.4HCA | 2.33 | 2.52 | | | | | |
| ZMM2.4HCB | 2.43 | 2.63 | | | | | |
| ZMM2.7HC | 2.50 | 2.90 | 20 | 100 | 20 | 100 | 1 |
| ZMM2.7HCA | 2.54 | 2.75 | | | | | |
| ZMM2.7HCB | 2.69 | 2.91 | | | | | |
| ZMM3.0HC | 2.80 | 3.20 | 20 | 80 | 20 | 50 | 1 |
| ZMM3.0HCA | 2.85 | 3.07 | | | | | |
| ZMM3.0HCB | 3.01 | 3.22 | | | | | |
| ZMM3.3HC | 3.10 | 3.50 | 20 | 70 | 20 | 20 | 1 |
| ZMM3.3HCA | 3.16 | 3.38 | | | | | |
| ZMM3.3HCB | 3.32 | 3.53 | | | | | |
| ZMM3.6HC | 3.40 | 3.80 | 20 | 60 | 20 | 10 | 1 |
| ZMM3.6HCA | 3.47 | 3.68 | | | | | |
| ZMM3.6HCB | 3.62 | 3.83 | | | | | |
| ZMM3.9HC | 3.70 | 4.10 | 20 | 50 | 20 | 5 | 1 |
| ZMM3.9HCA | 3.77 | 3.98 | | | | | |
| ZMM3.9HCB | 3.92 | 4.14 | | | | | |
| ZMM4.3HC | 4.00 | 4.50 | 20 | 40 | 20 | 5 | 1 |
| ZMM4.3HCA | 4.05 | 4.26 | | | | | |
| ZMM4.3HCB | 4.20 | 4.40 | | | | | |
| ZMM4.3HCC | 4.34 | 4.53 | | | | | |
| ZMM4.7HC | 4.40 | 4.90 | 20 | 25 | 20 | 5 | 1 |
| ZMM4.7HCA | 4.47 | 4.65 | | | | | |
| ZMM4.7HCB | 4.59 | 4.77 | | | | | |
| ZMM4.7HCC | 4.71 | 4.91 | | | | | |
| ZMM5.1HC | 4.80 | 5.40 | 20 | 20 | 20 | 5 | 1.5 |
| ZMM5.1HCA | 4.85 | 5.03 | | | | | |
| ZMM5.1HCB | 4.97 | 5.18 | | | | | |
| ZMM5.1HCC | 5.12 | 5.35 | | | | | |

Tested with pulse $t_p = 20\text{ms}$



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ISO 9001 : 2000
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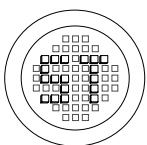
Dated : 02/04/2005

ZMM...HC Series

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

| TYPE | Zener Voltage | | | Dynamic Resistance | | Reverse Leakage Current (I_R at V_R) | |
|------------|---------------|----------|---------------|--------------------|---------------|--|-----------|
| | Min. (V) | Max. (V) | I_{ZT} (mA) | Ohm at I_{ZT} | I_{ZT} (mA) | I_R (μA) Max. | V_R (V) |
| ZMM5.6HC | 5.30 | 6.00 | 20 | 13 | 20 | 5 | 2.5 |
| ZMM5.6HCA | 5.29 | 5.52 | | | | | |
| ZMM5.6HCB | 5.46 | 5.70 | | | | | |
| ZMMM5.6HCC | 5.64 | 5.88 | | | | | |
| ZMM6.2HC | 5.80 | 6.60 | 20 | 10 | 20 | 5 | 3 |
| ZMM6.2HCA | 5.81 | 6.06 | | | | | |
| ZMM6.2HCB | 5.99 | 6.24 | | | | | |
| ZMM6.2HCC | 6.16 | 6.40 | | | | | |
| ZMM6.8HC | 6.40 | 7.20 | 20 | 8 | 20 | 2 | 3.5 |
| ZMM6.8HCA | 6.32 | 6.59 | | | | | |
| ZMM6.8HCB | 6.52 | 6.79 | | | | | |
| ZMM6.8HCC | 6.70 | 6.97 | | | | | |
| ZMM7.5HC | 7.00 | 7.90 | 20 | 8 | 20 | 0.5 | 4 |
| ZMM7.5HCA | 6.88 | 7.19 | | | | | |
| ZMM7.5HCB | 7.11 | 7.41 | | | | | |
| ZMM7.5HCC | 7.33 | 7.64 | | | | | |
| ZMM8.2HC | 7.70 | 8.70 | 20 | 8 | 20 | 0.5 | 5 |
| ZMM8.2HCA | 7.56 | 7.90 | | | | | |
| ZMM8.2HCB | 7.82 | 8.15 | | | | | |
| ZMM8.2HCC | 8.07 | 8.41 | | | | | |
| ZMM9.1HC | 8.50 | 9.60 | 20 | 8 | 20 | 0.5 | 6 |
| ZMM9.1HCA | 8.33 | 8.70 | | | | | |
| ZMM9.1HCB | 8.61 | 8.99 | | | | | |
| ZMM9.1HCC | 8.89 | 9.29 | | | | | |
| ZMM10HC | 9.40 | 10.90 | 20 | 8 | 20 | 0.2 | 7 |
| ZMM10HCA | 9.19 | 9.59 | | | | | |
| ZMM10HCB | 9.48 | 9.90 | | | | | |
| ZMM10HCC | 9.82 | 10.30 | | | | | |

Tested with pulse $t_p = 20\text{ms}$



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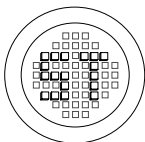
Dated : 02/04/2005

ZMM...HC Series

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

| TYPE | Zener Voltage | | | Dynamic Resistance | | Reverse Leakage Current (I_R at V_R) | |
|----------|---------------|----------|---------------|--------------------|---------------|--|-----------|
| | Min. (V) | Max. (V) | I_{ZT} (mA) | Ohm at I_{ZT} | I_{ZT} (mA) | I_R (μA) Max. | V_R (V) |
| ZMM11HC | 10.40 | 11.60 | 10 | 10 | 10 | 0.2 | 8 |
| ZMM11HCA | 10.18 | 10.63 | | | | | |
| ZMM11HCB | 10.50 | 10.95 | | | | | |
| ZMM11HCC | 10.82 | 11.26 | | | | | |
| ZMM12HC | 11.40 | 12.60 | 10 | 12 | 10 | 0.2 | 9 |
| ZMM12HCA | 11.13 | 11.63 | | | | | |
| ZMM12HCB | 11.50 | 11.92 | | | | | |
| ZMM12HCC | 11.80 | 12.30 | | | | | |
| ZMM13HC | 12.40 | 14.10 | 10 | 14 | 10 | 0.2 | 10 |
| ZMM13HCA | 12.18 | 12.71 | | | | | |
| ZMM13HCB | 12.59 | 13.16 | | | | | |
| ZMM13HCC | 13.03 | 13.62 | | | | | |
| ZMM15HC | 13.80 | 15.60 | 10 | 16 | 10 | 0.2 | 11 |
| ZMM15HCA | 13.48 | 14.09 | | | | | |
| ZMM15HCB | 13.95 | 14.56 | | | | | |
| ZMM15HCC | 14.42 | 15.52 | | | | | |
| ZMM16HC | 15.30 | 17.10 | 10 | 18 | 10 | 0.2 | 12 |
| ZMM16HCA | 14.87 | 15.50 | | | | | |
| ZMM16HCB | 15.33 | 15.96 | | | | | |
| ZMM16HCC | 15.79 | 16.50 | | | | | |
| ZMM18HC | 16.80 | 19.10 | 10 | 23 | 10 | 0.2 | 13 |
| ZMM18HCA | 16.34 | 17.06 | | | | | |
| ZMM18HCB | 16.90 | 17.67 | | | | | |
| ZMM18HCC | 17.51 | 18.30 | | | | | |
| ZMM20HC | 18.80 | 21.60 | 10 | 28 | 10 | 0.2 | 15 |
| ZMM20HCA | 18.11 | 18.92 | | | | | |
| ZMM20HCB | 18.73 | 19.57 | | | | | |
| ZMM20HCC | 19.38 | 20.22 | | | | | |
| ZMM20HCD | 19.88 | 20.72 | | | | | |
| ZMM22HC | 20.80 | 23.30 | 5 | 30 | 5 | 0.2 | 17 |
| ZMM22HCA | 20.23 | 21.08 | | | | | |
| ZMM22HCB | 20.76 | 21.65 | | | | | |
| ZMM22HCC | 21.22 | 22.09 | | | | | |
| ZMM22HCD | 21.68 | 22.61 | | | | | |
| ZMM24HC | 21.80 | 25.60 | 5 | 35 | 5 | 0.2 | 19 |
| ZMM24HCA | 22.26 | 23.12 | | | | | |
| ZMM24HCB | 22.75 | 23.73 | | | | | |
| ZMM24HCC | 23.29 | 24.27 | | | | | |
| ZMM24HCD | 23.81 | 24.81 | | | | | |

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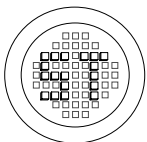
Dated : 02/04/2005

ZMM...HC Series

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

| TYPE | Zener Voltage | | | Dynamic Resistance | | Reverse Leakage Current (I_R at V_R) | |
|----------|---------------|----------|---------------|--------------------|---------------|--|-----------|
| | Min. (V) | Max. (V) | I_{ZT} (mA) | Ohm at I_{ZT} | I_{ZT} (mA) | I_R (μA) Max. | V_R (V) |
| ZMM27HC | 25.10 | 28.90 | 5 | 45 | 5 | 0.2 | 21 |
| ZMM27HCA | 24.26 | 25.52 | | | | | |
| ZMM27HCB | 24.97 | 26.26 | | | | | |
| ZMM27HCC | 25.63 | 26.95 | | | | | |
| ZMM27HCD | 26.29 | 27.64 | | | | | |
| ZMM30HC | 28.00 | 32.00 | 5 | 55 | 5 | 0.2 | 23 |
| ZMM30HCA | 26.99 | 28.39 | | | | | |
| ZMM30HCB | 27.70 | 29.13 | | | | | |
| ZMM30HCC | 28.36 | 29.82 | | | | | |
| ZMM30HCD | 29.02 | 30.51 | | | | | |
| ZMM33HC | 31.00 | 35.00 | 5 | 65 | 5 | 0.2 | 25 |
| ZMM33HCA | 29.68 | 31.22 | | | | | |
| ZMM33HCB | 30.32 | 31.88 | | | | | |
| ZMM33HCC | 30.90 | 32.50 | | | | | |
| ZMM33HCD | 31.49 | 33.11 | | | | | |

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