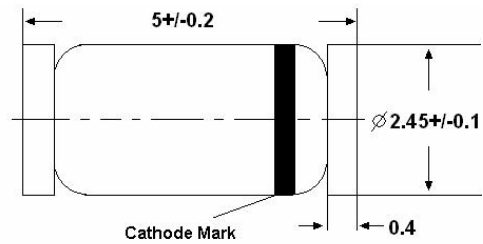


SILICON PLANAR POWER ZENER DIODES

LL-41



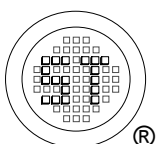
**Glass case MELF
Dimensions in mm**

Absolute Maximum Ratings (T_a = 25°C)

| | Symbol | Value | Unit |
|---|------------------|-------------|------|
| Zener Current see Table "Characteristics" | | | |
| Power Dissipation | P _{tot} | 1.3 | W |
| Junction Temperature | T _j | 200 | °C |
| Storage Temperature Range | T _s | -55 to +200 | °C |

Characteristics at T_{amb} = 25°C

| | Symbol | Min. | Typ. | Max. | Unit |
|---|------------------|------|------|------|------|
| Thermal Resistance Junction to Ambient Air | R _{thA} | - | - | 130 | K/W |
| Forward Voltage at I _F = 200mA | V _F | - | - | 1 | V |



SEMTECH ELECTRONICS LTD.

(Subsidiary of Sino-Tech International Holdings Limited, a company listed on the Hong Kong Stock Exchange, Stock Code: 724)



ISO/TS 16949 : 2002
Certificate No. 05103



ISO 14001:2004
Certificate No. 71116

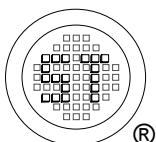


ISO 9001:2000
Certificate No. 0506098

ZM1.3C ...

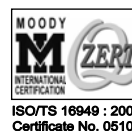
| Type | Zener Voltage Range ¹⁾ | | | Dynamic Resistance | | | Reverse Leakage Current | | Temp coefficient of Zener Voltage TKvz %/K |
|-------------|-----------------------------------|-----------------------|--------------------------|-----------------------|-----------------------|--------------------------|-------------------------|------------------------|--|
| | Vznom V | I _{ZT} mA | for V _{ZT} V | r _{ZJT} Ω | r _{ZJK} Ω | at I _{ZK} mA | I _R μA | at V _R V | |
| ZM 1.3C 2V7 | 2.7 | 80 | 2.5...2.9 | <20 | <400 | 1 | <150 | 1 | -0.08...-0.05 |
| ZM 1.3C 3V0 | 3.0 | 80 | 2.8...3.2 | <20 | <400 | 1 | <100 | 1 | -0.08...-0.05 |
| ZM 1.3C 3V3 | 3.3 | 70 | 3.1...3.5 | <20 | <400 | 1 | <40 | 1 | -0.08...-0.05 |
| ZM 1.3C 3V6 | 3.6 | 60 | 3.4...3.8 | <15 | <500 | 1 | <20 | 1 | -0.08...-0.05 |
| ZM 1.3C 3V9 | 3.9 | 60 | 3.7...4.1 | <15 | <500 | 1 | <10 | 1 | -0.07...-0.02 |
| ZM 1.3C 4V3 | 4.3 | 50 | 4.0...4.6 | <13 | <500 | 1 | <3 | 1 | -0.07...+0.01 |
| ZM 1.3C 4V7 | 4.7 | 45 | 4.4...5.0 | <13 | <600 | 1 | <3 | 1 | -0.03...+0.04 |
| ZM 1.3C 5V1 | 5.1 | 45 | 4.8...5.4 | <10 | <500 | 1 | <1 | 1.5 | -0.01...+0.04 |
| ZM 1.3C 5V6 | 5.6 | 45 | 5.2...6.0 | <7 | <400 | 1 | <1 | 2 | 0...+0.045 |
| ZM 1.3C 6V2 | 6.2 | 35 | 5.8...6.6 | <4 | <300 | 1 | <1 | 3 | +0.01...+0.055 |
| ZM 1.3C 6V8 | 6.8 | 35 | 6.4...7.2 | <3.5 | <300 | 1 | <1 | 4 | +0.015...+0.06 |
| ZM 1.3C 7V5 | 7.5 | 35 | 7.0...7.9 | <3 | <200 | 0.5 | <1 | 4.5 | +0.02...+0.065 |
| ZM 1.3C 8V2 | 8.2 | 25 | 7.7...8.7 | <5 | <200 | 0.5 | <1 | 6.2 | 0.03...0.07 |
| ZM 1.3C 9V1 | 9.1 | 25 | 8.5...9.6 | <5 | <200 | 0.5 | <1 | 6.8 | 0.035...0.075 |
| ZM 1.3C 10 | 10 | 25 | 9.4...10.6 | <7 | <200 | 0.5 | <0.5 | 7 | 0.04...0.08 |
| ZM 1.3C 11 | 11 | 20 | 10.4...11.6 | <8 | <300 | 0.5 | <0.5 | 8.2 | 0.045...0.08 |
| ZM 1.3C 12 | 12 | 20 | 11.4...12.7 | <9 | <350 | 0.5 | <0.5 | 9.1 | 0.045...0.085 |
| ZM 1.3C 13 | 13 | 20 | 12.4...14.1 | <10 | <400 | 0.5 | <0.5 | 10 | 0.05...0.085 |
| ZM 1.3C 15 | 15 | 15 | 13.8...15.6 | <15 | <500 | 0.5 | <0.5 | 11 | 0.055...0.09 |
| ZM 1.3C 16 | 16 | 15 | 15.3...17.1 | <15 | <500 | 0.5 | <0.5 | 12 | 0.055...0.09 |
| ZM 1.3C 18 | 18 | 15 | 16.8...19.1 | <20 | <500 | 0.5 | <0.5 | 13 | 0.06...0.09 |
| ZM 1.3C 20 | 20 | 10 | 18.8...21.2 | <24 | <600 | 0.5 | <0.5 | 15 | 0.06...0.09 |
| ZM 1.3C 22 | 22 | 10 | 20.8...23.3 | <25 | <600 | 0.5 | <0.5 | 16 | 0.06...0.095 |
| ZM 1.3C 24 | 24 | 10 | 22.8...25.6 | <25 | <600 | 0.5 | <0.5 | 18 | 0.06...0.095 |
| ZM 1.3C 27 | 27 | 8 | 25.1...28.9 | <30 | <750 | 0.25 | <0.5 | 20 | 0.06...0.095 |
| ZM 1.3C 30 | 30 | 8 | 28...32 | <30 | <1000 | 0.25 | <0.5 | 22 | 0.06...0.095 |
| ZM 1.3C 33 | 33 | 8 | 31...35 | <35 | <1000 | 0.25 | <0.5 | 24 | 0.06...0.095 |
| ZM 1.3C 36 | 36 | 8 | 34...38 | <40 | <1000 | 0.25 | <0.5 | 27 | 0.06...0.095 |
| ZM 1.3C 39 | 39 | 6 | 37...41 | <50 | <1000 | 0.25 | <0.5 | 30 | 0.06...0.095 |
| ZM 1.3C 43 | 43 | 6 | 40...46 | <50 | <1000 | 0.25 | <0.5 | 33 | 0.06...0.095 |
| ZM 1.3C 47 | 47 | 4 | 44...50 | <90 | <1500 | 0.25 | <0.5 | 36 | 0.06...0.095 |
| ZM 1.3C 51 | 51 | 4 | 48...54 | <115 | <1500 | 0.25 | <0.5 | 39 | 0.06...0.095 |
| ZM 1.3C 56 | 56 | 4 | 52...60 | <120 | <2000 | 0.25 | <0.5 | 43 | 0.06...0.095 |
| ZM 1.3C 62 | 62 | 4 | 58...66 | <125 | <2000 | 0.25 | <0.5 | 47 | 0.06...0.095 |
| ZM 1.3C 68 | 68 | 4 | 64...72 | <130 | <2000 | 0.25 | <0.5 | 51 | 0.06...0.095 |
| ZM 1.3C 75 | 75 | 4 | 70...79 | <135 | <2000 | 0.25 | <0.5 | 56 | 0.06...0.095 |
| ZM 1.3C 82 | 82 | 2.7 | 77...87 | <200 | <3000 | 0.25 | <0.5 | 62 | 0.07...0.10 |
| ZM 1.3C 91 | 91 | 2.7 | 85...96 | <250 | <3000 | 0.25 | <0.5 | 68 | 0.07...0.10 |
| ZM 1.3C 100 | 100 | 2.7 | 94...106 | <350 | <3000 | 0.25 | <0.5 | 75 | 0.07...0.11 |
| ZM 1.3C 110 | 110 | 2.7 | 104...116 | <450 | <4000 | 0.25 | <0.5 | 82 | 0.07...0.11 |
| ZM 1.3C 120 | 120 | 2 | 114...127 | <550 | <4500 | 0.25 | <0.5 | 91 | 0.07...0.11 |
| ZM 1.3C 130 | 130 | 2 | 124...141 | <700 | <5000 | 0.25 | <0.5 | 100 | 0.07...0.11 |
| ZM 1.3C 150 | 150 | 2 | 138...156 | <1000 | <6000 | 0.25 | <0.5 | 110 | 0.07...0.11 |
| ZM 1.3C 160 | 160 | 1.5 | 153...171 | <1100 | <6500 | 0.25 | <0.5 | 120 | 0.07...0.11 |
| ZM 1.3C 180 | 180 | 1.5 | 168...191 | <1200 | <7000 | 0.25 | <0.5 | 130 | 0.07...0.11 |
| ZM 1.3C 200 | 200 | 1.5 | 188...212 | <1500 | <8000 | 0.25 | <0.5 | 150 | 0.07...0.11 |

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



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Dated : 10/05/2005