



PDZ4.7B ~ PDZ36B

SURFACE MOUNT SILICON ZENER DIODES

VOLTAGE 4.7 to 36 Volt

POWER 400 mWatt

SOD-323

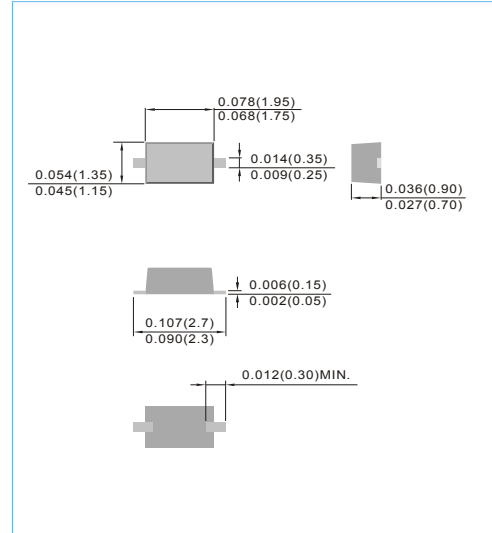
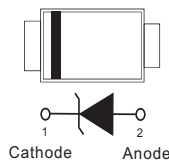
Unit : inch(mm)

FEATURES

- Planar Die construction
- 400mW Power Dissipation
- Ideally Suited for Automated Assembly Processes
- Lead free in compliance with EU RoHS 2011/65/EU directive
- Green molding compound as per IEC61249 Std. . (Halogen Free)

MECHANICAL DATA

- Case: SOD-323, Molded Plastic
- Terminals: Solderable per MIL-STD-750, Method 2026
- Appox Weight: 0.00014 ounces, 0.0041 grams



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

| PARAMETER | SYMBOL | LIMITS | UNIT |
|--|-----------------|--------------|------|
| Maximum Power Dissipation (Note A) at 25°C | P_D | 400 | mW |
| Operating Junction and Storage Temperature Range | T_J | -55 to + 150 | °C |
| Thermal Resistance, Junction to Ambient (Note B) | $R_{\theta JA}$ | 650 | °C/W |

NOTE :

A.Mounted on 5mm²(0.013mm thick) land areas

B.Mounted on a FR4 PCB, single-sided copper, mini pad.



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| Part Number | Nominal Zener Voltage | | Max. Zener Impedance | | | | Max Reverse Leakage Current | | Marking Code |
|-------------|----------------------------------|--------|-----------------------------------|----|-----------------------------------|-----|---------------------------------|------|--------------|
| | V _Z @ I _{ZT} | | Z _{VT} @ I _{ZT} | | Z _{ZK} @ I _{ZK} | | I _R @ V _R | | |
| | Min. V | Max. V | Ω | mA | Ω | mA | μA | V | |
| PDZ4.7B | 4.55 | 4.75 | 90 | 5 | 600 | 1 | 0.75 | 1.5 | Z7 |
| PDZ5.1B | 4.96 | 5.2 | 60 | 5 | 800 | 0.5 | 0.75 | 1.5 | Z8 |
| PDZ5.6B | 5.48 | 5.73 | 50 | 5 | 400 | 0.5 | 0.50 | 3.0 | Z9 |
| PDZ6.2B | 6.06 | 6.33 | 50 | 5 | 80 | 0.5 | 0.50 | 3.0 | ZA |
| PDZ6.8B | 6.65 | 6.93 | 40 | 5 | 60 | 0.5 | 0.50 | 3.5 | ZB |
| PDZ7.5B | 7.28 | 7.60 | 10 | 5 | 60 | 0.5 | 0.50 | 4.0 | ZC |
| PDZ8.2B | 8.02 | 8.36 | 10 | 5 | 60 | 0.5 | 0.50 | 5.0 | ZD |
| PDZ9.1B | 8.85 | 9.23 | 10 | 5 | 60 | 0.5 | 0.50 | 6.0 | ZE |
| PDZ10B | 9.77 | 10.21 | 10 | 5 | 60 | 0.5 | 0.10 | 7.0 | ZF |
| PDZ11B | 10.78 | 11.22 | 10 | 5 | 60 | 0.5 | 0.10 | 8.0 | ZG |
| PDZ12B | 11.74 | 12.24 | 10 | 5 | 80 | 0.5 | 0.10 | 9.0 | ZH |
| PDZ13B | 12.91 | 13.49 | 10 | 5 | 80 | 0.5 | 0.10 | 10.0 | ZJ |
| PDZ15B | 14.34 | 14.98 | 15 | 5 | 80 | 0.5 | 0.05 | 11.0 | ZK |
| PDZ16B | 15.85 | 16.51 | 20 | 5 | 80 | 0.5 | 0.05 | 12.0 | ZL |
| PDZ18B | 17.56 | 18.35 | 20 | 5 | 80 | 0.5 | 0.05 | 13.0 | ZM |
| PDZ20B | 19.52 | 20.39 | 20 | 5 | 100 | 0.5 | 0.05 | 15.0 | ZN |
| PDZ22B | 21.54 | 22.47 | 25 | 5 | 100 | 0.5 | 0.05 | 17.0 | ZP |
| PDZ24B | 23.72 | 24.78 | 30 | 5 | 120 | 0.5 | 0.05 | 19.0 | ZQ |
| PDZ27B | 26.19 | 27.53 | 40 | 5 | 150 | 0.5 | 0.05 | 21.0 | ZR |
| PDZ30B | 29.19 | 30.69 | 40 | 5 | 200 | 0.5 | 0.05 | 23.0 | ZS |
| PDZ33B | 32.15 | 33.79 | 40 | 5 | 250 | 0.5 | 0.05 | 25.0 | ZT |
| PDZ36B | 35.07 | 36.87 | 60 | 5 | 300 | 0.5 | 0.05 | 27.0 | ZU |



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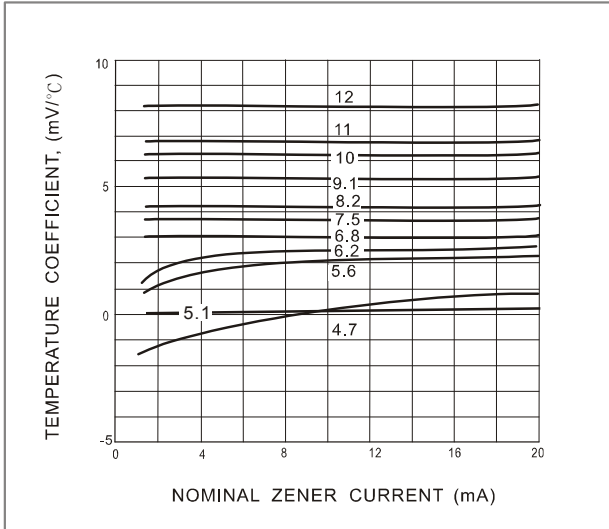


Fig.1 TEMPERATURE COEFFICIENTS AS FUNCTION OF WORKING CURRENT ; TYPICAL VALUES

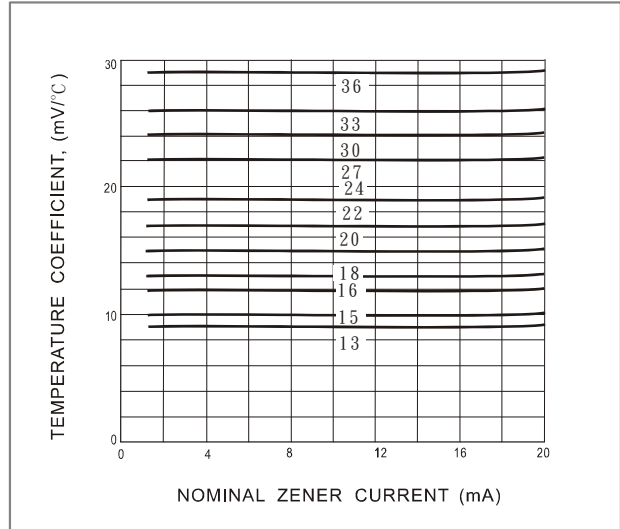


Fig.2 TEMPERATURE COEFFICIENTS AS FUNCTION OF WORKING CURRENT ; TYPICAL VALUES

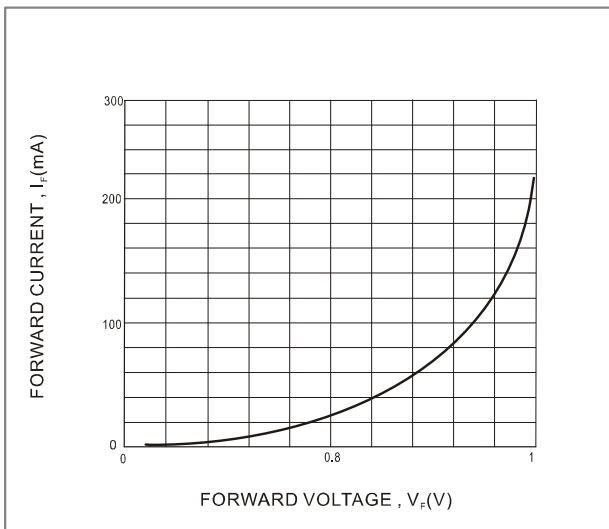


Fig.3 Forward current as a function of forward voltage ; typical values

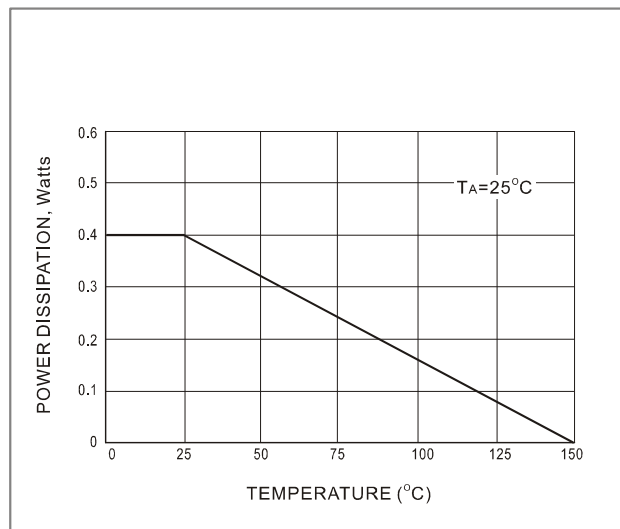


Fig.4 POWER DERATING CURVE

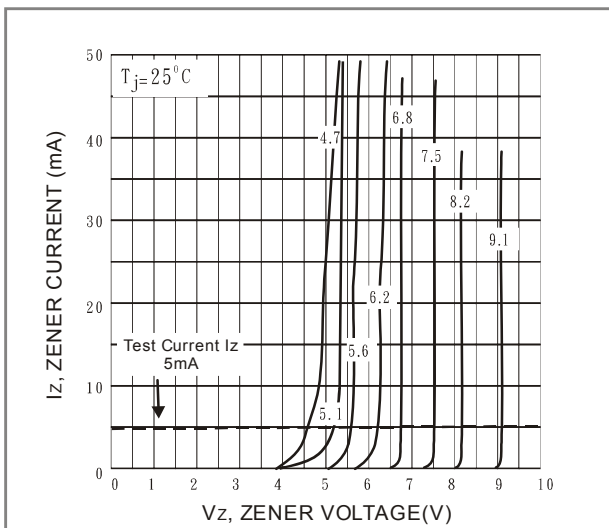


Fig.5 ZENER BREAKDOWN CHARACTERISTICS

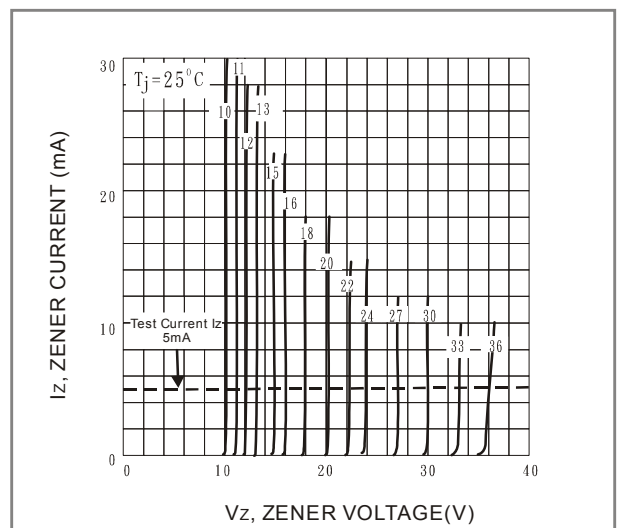


Fig.6 ZENER BREAKDOWN CHARACTERISTICS

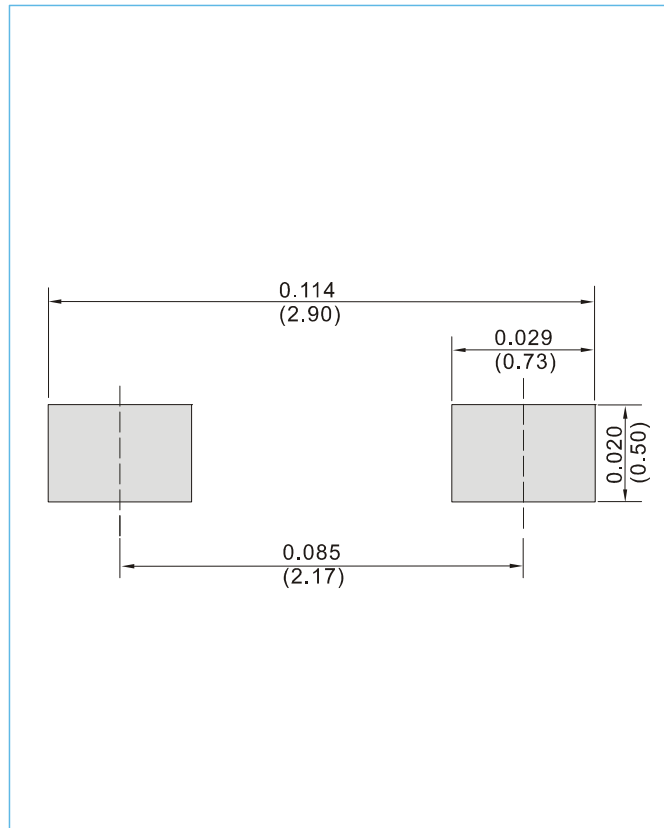


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MOUNTING PAD LAYOUT

SOD-323

Unit : inch(mm)



ORDER INFORMATION

- Packing information
T/R - 12K per 13" plastic Reel
T/R - 5K per 7" plastic Reel



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Part No_packing code_Version

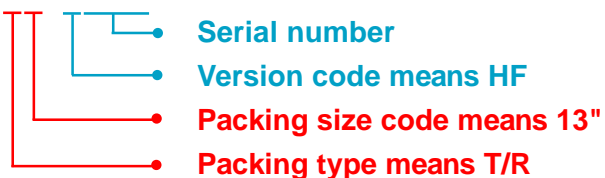
PDZ4.7B_R1_00001

PDZ4.7B_R2_00001

For example :

RB500V-40 **R2** **00001**

Part No.



| Packing Code XX | | | | Version Code XXXXXX | | |
|--------------------------------------|----------------------|----------------------------------|----------------------|----------------------------|----------------------|---------------------------------------|
| Packing type | 1 st Code | Packing size code | 2 nd Code | HF or RoHS | 1 st Code | 2 nd ~5 th Code |
| Tape and Ammunition Box (T/B) | A | N/A | 0 | HF | 0 | serial number |
| Tape and Reel (T/R) | R | 7" | 1 | RoHS | 1 | serial number |
| Bulk Packing (B/P) | B | 13" | 2 | | | |
| Tube Packing (T/P) | T | 26mm | X | | | |
| Tape and Reel (Right Oriented) (TRR) | S | 52mm | Y | | | |
| Tape and Reel (Left Oriented) (TRL) | L | PANASERT T/B CATHODE UP (PBCU) | U | | | |
| FORMING | F | PANASERT T/B CATHODE DOWN (PBCD) | D | | | |



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