

Maximum Ratings ($@T_A = +25^{\circ}C$, unless otherwise specified.)

| | Characteristic | Symbol | Value | Unit |
|-----------------|-------------------------|--------|-------|------|
| Forward Voltage | @ I _F = 10mA | \/- | 0.9 | V |
| | $@I_F = 100mA$ | V F | 1.1 | v |

Thermal Characteristics

| Characteristic | Symbol | Value | Unit |
|--|------------------|-------------|------|
| Power Dissipation (Note 5) | P_{D} | 500 | mW |
| Thermal Resistance, Junction to Ambient Air (Note 5) | $R_{	hetaJA}$ | 250 | °C/W |
| Operating and Storage Temperature Range | T_{J}, T_{STG} | -65 to +150 | °C |

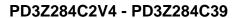
Electrical Characteristics ($@T_A = +25$ °C, unless otherwise specified.)

| Type Number | Marking Code | Zener Voltage Range (Note 6) | | | Maximum Zener Impedance (Note 7) | | | Maximum Reverse Current (Note 6) | | Temperature Coefficient of Zener Voltage @ I _{ZT} = 5mA | | |
|----------------|-----------------|----------------------------------|---------|-----------------|-------------------------------------|-----------------------------------|-----------------|---|-----------------------|---|------|------|
| Number | Oode | V _Z @ I _{ZT} | | I _{ZT} | Z _{ZT} @ I _{ZT} | Z _{ZK} @ I _{ZK} | I _{ZK} | I _R | V _R | m۷ | //°C | |
| | | Nom (V) | Min (V) | Max (V) | (mA) | Ω | Σ | mA | μΑ | V | Min | Max |
| PD3Z284C2V4 | 06 | 2.4 | 2.20 | 2.60 | 5 | 100 | 400 | 1.0 | 50 | 1.0 | -3.5 | 0 |
| PD3Z284C2V7 | 80 | 2.7 | 2.5 | 2.9 | 5 | 100 | 450 | 1.0 | 20 | 1.0 | -3.5 | 0 |
| PD3Z284C3V0 | 0A | 3.0 | 2.8 | 3.2 | 5 | 95 | 500 | 1.0 | 10 | 1.0 | -3.5 | 0 |
| PD3Z284C3V3 | 0B | 3.3 | 3.1 | 3.5 | 5 | 95 | 500 | 1.0 | 5 | 1.0 | -3.5 | 0 |
| PD3Z284C3V6 | 0C | 3.6 | 3.4 | 3.8 | 5 | 90 | 500 | 1.0 | 5 | 1.0 | -3.5 | 0 |
| PD3Z284C3V9 | 0D | 3.9 | 3.7 | 4.1 | 5 | 90 | 500 | 1.0 | 3 | 1.0 | -3.5 | 0 |
| PD3Z284C4V3 | 0E | 4.3 | 4.0 | 4.6 | 5 | 90 | 600 | 1.0 | 3 | 1.0 | -3.5 | 0 |
| PD3Z284C4V7 | 0F | 4.7 | 4.4 | 5.0 | 5 | 80 | 500 | 1.0 | 3 | 2.0 | -3.5 | 0.2 |
| PD3Z284C5V1 | Z0G, 0G | 5.1 | 4.8 | 5.4 | 5 | 60 | 480 | 1.0 | 2 | 2.0 | -2.7 | 1.2 |
| PD3Z284C5V6 | Z0H, 0H | 5.6 | 5.2 | 6.0 | 5 | 40 | 400 | 1.0 | 1 | 2.0 | -2.0 | 2.5 |
| PD3Z284C6V2 | Z0K, 0K | 6.2 | 5.8 | 6.6 | 5 | 10 | 150 | 1.0 | 3 | 4.0 | 0.4 | 3.7 |
| PD3Z284C6V8 | Z0L, 0L | 6.8 | 6.4 | 7.2 | 5 | 15 | 80 | 1.0 | 2 | 4.0 | 1.2 | 4.5 |
| PD3Z284C7V5 | ZOM, OM | 7.5 | 7.0 | 7.9 | 5 | 10 | 80 | 1.0 | 1 | 5.0 | 2.5 | 5.3 |
| PD3Z284C8V2 | Z0N, 0N | 8.2 | 7.7 | 8.7 | 5 | 10 | 80 | 1.0 | 0.7 | 5.0 | 3.2 | 6.2 |
| PD3Z284C9V1 | Z0P, 0P | 9.1 | 8.5 | 9.6 | 5 | 10 | 100 | 1.0 | 0.5 | 6.0 | 3.8 | 7.0 |
| PD3Z284C10 | Z0Q, 0Q | 10 | 9.4 | 10.6 | 5 | 10 | 150 | 1.0 | 0.2 | 7.0 | 4.5 | 8.0 |
| PD3Z284C11 | Z0R, 0R | 11 | 10.4 | 11.6 | 5 | 10 | 150 | 1.0 | 0.1 | 8.0 | 5.4 | 9.0 |
| PD3Z284C12 | Z0S, 0S | 12 | 11.4 | 12.7 | 5 | 10 | 150 | 1.0 | 0.1 | 8.0 | 6.0 | 10.0 |
| PD3Z284C13 | 0T | 13 | 12.4 | 14.1 | 5 | 10 | 170 | 1.0 | 0.1 | 8.0 | 7.0 | 11.0 |
| PD3Z284C15 | 0V | 15 | 13.8 | 15.6 | 5 | 15 | 200 | 1.0 | 0.1 | 10.5 | 9.2 | 13.0 |
| PD3Z284C16 | OW | 16 | 15.3 | 17.1 | 5 | 20 | 200 | 1.0 | 0.1 | 11.2 | 10.4 | 14.0 |
| PD3Z284C18 | 0Y | 18 | 16.8 | 19.1 | 5 | 20 | 225 | 1.0 | 0.1 | 12.6 | 12.4 | 16.0 |
| PD3Z284C20 | 0Z | 20 | 18.8 | 21.2 | 5 | 20 | 225 | 1.0 | 0.1 | 14.0 | 14.4 | 18.0 |
| PD3Z284C22 | 11 | 22 | 20.8 | 23.3 | 5 | 25 | 250 | 1.0 | 0.1 | 15.4 | 16.4 | 20.0 |
| PD3Z284C24 | 12 | 24 | 22.8 | 25.6 | 5 | 30 | 250 | 1.0 | 0.1 | 16.8 | 18.4 | 22.0 |
| PD3Z284C27 | 14 | 27 | 25.1 | 28.9 | 2 | 40 | 250 | 0.5 | 0.1 | 18.9 | 21.4 | 25.3 |
| PD3Z284C30 | 16 | 30 | 28.0 | 32.0 | 2 | 40 | 250 | 0.5 | 0.1 | 21.0 | 24.4 | 29.4 |
| PD3Z284C33 | 17 | 33 | 31.0 | 35.0 | 2 | 40 | 275 | 0.5 | 0.1 | 23.1 | 27.4 | 33.4 |
| PD3Z284C36 | 18 | 36 | 34.0 | 38.0 | 2 | 60 | 300 | 0.5 | 0.1 | 25.2 | 30.4 | 37.4 |
| PD3Z284C39 | 19 | 39 | 37.0 | 41.0 | 2 | 75 | 300 | 0.5 | 0.1 | 27.3 | 33.4 | 41.2 |

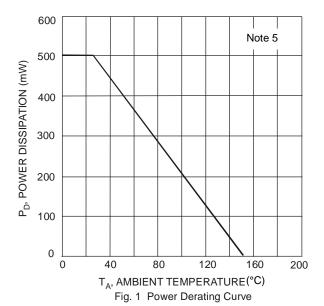
Notes: 5. Part mounted on polymide PC board with recommended pad layout, as per http://www.diodes.com/package-outlines.html.

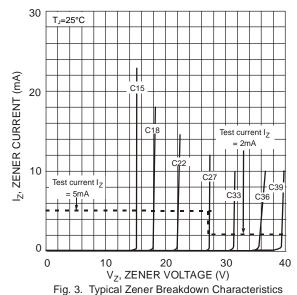
^{6.} Short duration pulse test used to minimize self-heating effect.

^{7.} f = 1kHz.









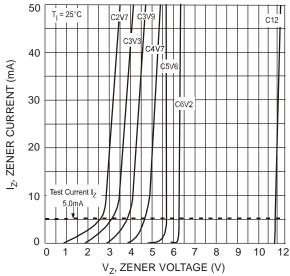


Fig. 2 Typical Zener Breakdown Characteristics

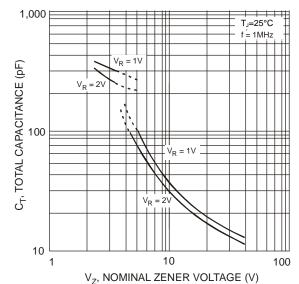


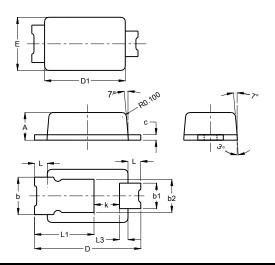
Fig. 4 Total Capacitance vs. Nominal Zener Voltage



Package Outline Dimensions

Please see http://www.diodes.com/package-outlines.html for the latest version.

PowerDI323 (Type B)

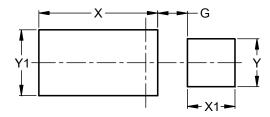


| PowerDI323 (Type B) | | | | | |
|----------------------|------|------|------|--|--|
| Dim | Min | Max | Тур | | |
| Α | 0.60 | 0.70 | 0.65 | | |
| b | 0.78 | 0.98 | 0.88 | | |
| b1 | 0.50 | 0.70 | 0.60 | | |
| b2 | 0.60 | 1.00 | 0.80 | | |
| С | 0.08 | 0.18 | 0.13 | | |
| D | 2.40 | 2.60 | 2.50 | | |
| D1 | 1.85 | 1.95 | 1.90 | | |
| Е | 1.20 | 1.30 | 1.25 | | |
| k | 0.40 | 0.80 | 0.60 | | |
| L | 0.20 | 0.40 | 0.30 | | |
| L1 | | | 1.40 | | |
| L3 | | | 0.20 | | |
| All Dimensions in mm | | | | | |

Suggested Pad Layout

Please see http://www.diodes.com/package-outlines.html for the latest version.

PowerDI323 (Type B)



| Dimensions | Value (in mm) | | | |
|------------|------------------|--|--|--|
| G | 0.50 | | | |
| Х | 2.00 | | | |
| X1 | 0.80 | | | |
| Y | 0.80 | | | |
| Y1 | 1.10 | | | |



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