

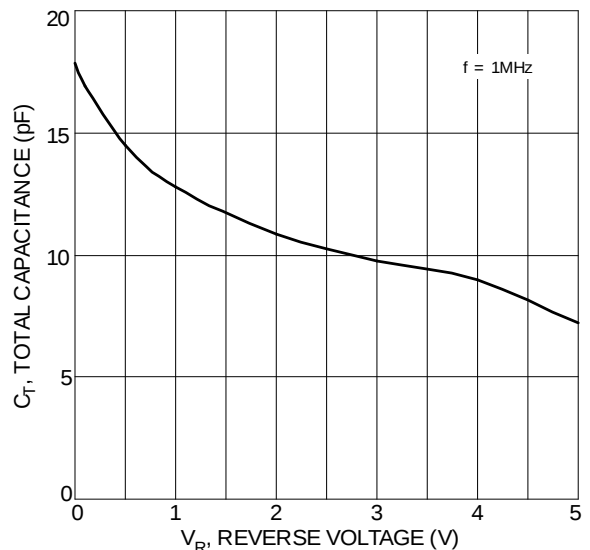
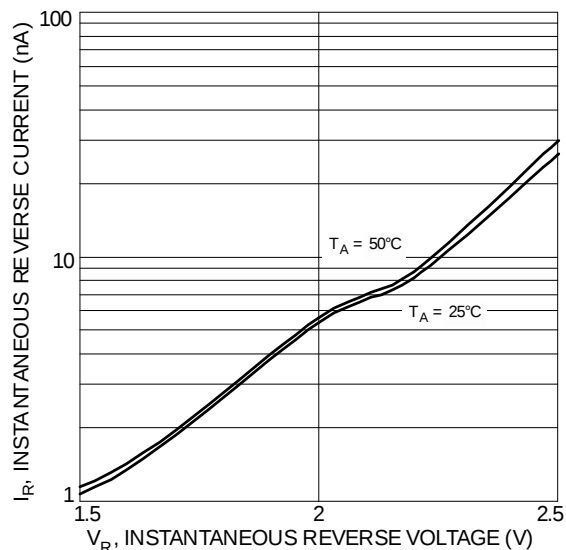
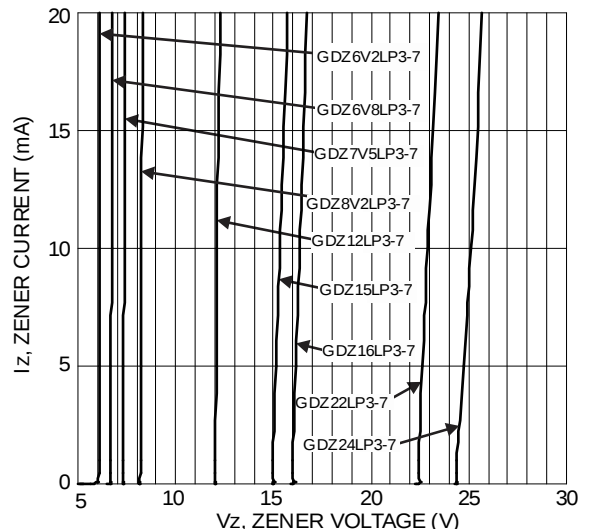
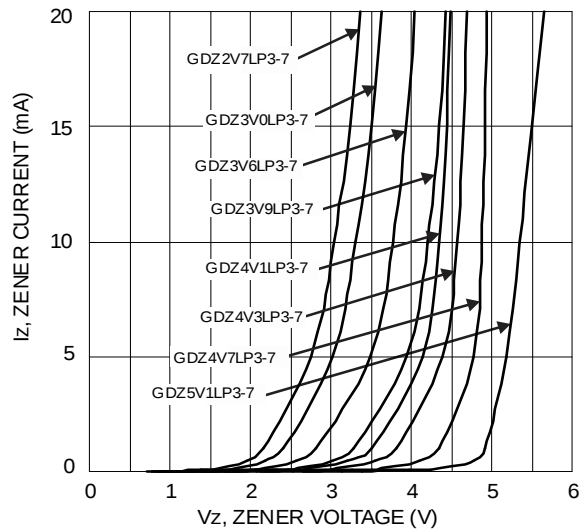
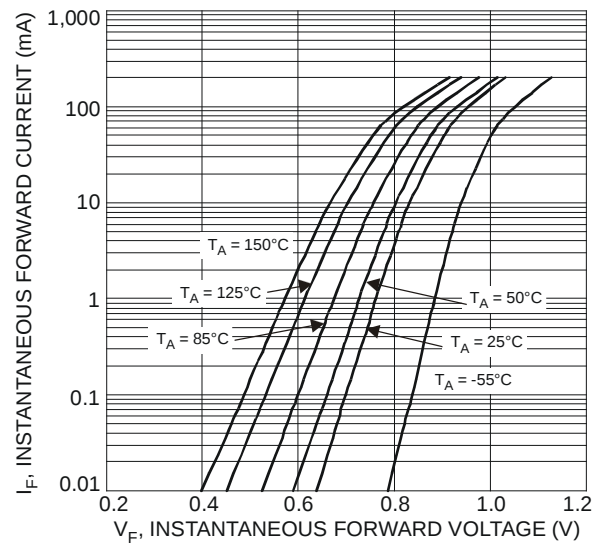
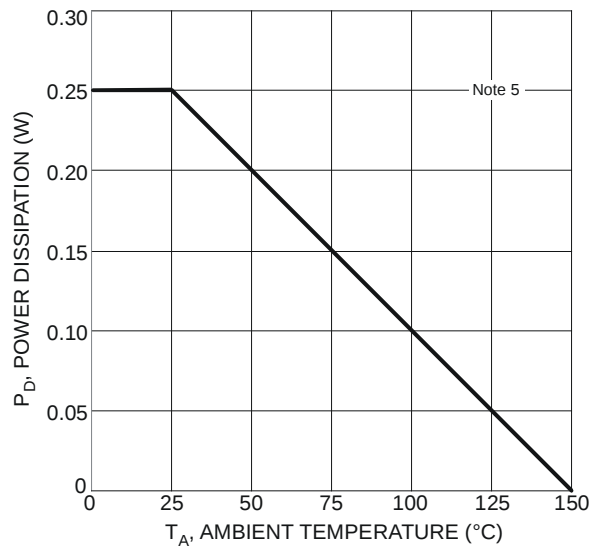
## Thermal Characteristics

| Characteristic                                                                 | Symbol          | Value       | Unit               |
|--------------------------------------------------------------------------------|-----------------|-------------|--------------------|
| Power Dissipation (Note 5) $T_A = +25^\circ\text{C}$                           | $P_D$           | 250         | mW                 |
| Thermal Resistance, Junction to Ambient Air (Note 5) $T_A = +25^\circ\text{C}$ | $R_{\theta JA}$ | 500         | $^\circ\text{C/W}$ |
| Operating and Storage Temperature Range                                        | $T_J, T_{STG}$  | -55 to +150 | $^\circ\text{C}$   |

## Electrical Characteristics (@ $T_A = +25^\circ\text{C}$ , unless otherwise specified.)

| Type Number | Marking Code | Zener Voltage Range (Note 6) |         |         |          | Reverse Current (Note 6)  |                       |             |
|-------------|--------------|------------------------------|---------|---------|----------|---------------------------|-----------------------|-------------|
|             |              | $V_Z @ I_{ZT}$               |         |         | $I_{ZT}$ | $I_R$                     |                       | @ $V_R$     |
|             |              | Nom (V)                      | Min (V) | Max (V) | mA       | Typical ( $\mu\text{A}$ ) | Max ( $\mu\text{A}$ ) | V           |
| GDZ2V7LP3   | JB           | 2.7                          | 2.57    | 2.84    | 5        | —                         | 20                    | 1.0         |
| GDZ3V0LP3   | JC           | 3.0                          | 2.85    | 3.15    | 5        | —                         | 10                    | 1.0         |
| GDZ3V3LP3   | JD           | 3.3                          | 3.14    | 3.47    | 5        | —                         | 10                    | 1.0         |
| GDZ3V6LP3   | KU           | 3.6                          | 3.41    | 3.79    | 5        | —                         | 10                    | 1.0         |
| GDZ3V9LP3   | KJ           | 3.9                          | 3.740   | 4.160   | 5        | —                         | 5                     | 1.0         |
| GDZ4V1LP3   | KY           | 4.1                          | 3.93    | 4.37    | 5        | —                         | 5.0                   | 1.0         |
| GDZ4V3LP3   | KK           | 4.3                          | 4.08    | 4.53    | 5        | —                         | 5.0                   | 1.0         |
| GDZ4V7LP3   | KL           | 4.7                          | 4.420   | 4.900   | 5        | —                         | 2.0                   | 1.0         |
| GDZ5V1LP3   | KM           | 5.1                          | 4.840   | 5.370   | 5        | —                         | 0.2                   | 2.0         |
| GDZ5V6LP3   | KN           | 5.6                          | 5.310   | 5.920   | 5        | —<br>90                   | 1.0<br>175            | 2.5<br>4.75 |
| GDZ6V0LP3   | KW           | 6.0                          | 5.676   | 6.324   | 5        | —                         | 1.0                   | 2.8         |
| GDZ6V2LP3   | KO           | 6.2                          | 5.860   | 6.530   | 5        | —                         | 1.0                   | 3.0         |
| GDZ6V8LP3   | KT           | 6.8                          | 6.470   | 7.140   | 5        | —                         | 0.5                   | 3.5         |
| GDZ7V5LP3   | KQ           | 7.5                          | 7.060   | 7.840   | 5        | —                         | 0.5                   | 4.0         |
| GDZ8V2LP3   | KX           | 8.2                          | 7.760   | 8.640   | 5        | —                         | 0.5                   | 5.0         |
| GDZ9V1LP3   | JE           | 9.1                          | 8.65    | 9.56    | 5        | —                         | 0.5                   | 6.0         |
| GDZ10LP3    | JF           | 10                           | 9.50    | 10.50   | 5        | —                         | 0.2                   | 7.0         |
| GDZ11LP3    | JG           | 11                           | 10.45   | 11.55   | 5        | —                         | 0.1                   | 8.0         |
| GDZ12LP3    | JH           | 12                           | 11.40   | 12.60   | 5        | —                         | 0.1                   | 8.0         |
| GDZ13LP3    | JI           | 13                           | 12.35   | 13.65   | 5        | —                         | 0.1                   | 8.0         |
| GDZ15LP3    | JJ           | 15                           | 14.25   | 15.75   | 5        | —                         | 0.1                   | 10.5        |
| GDZ16LP3    | JK           | 16                           | 15.20   | 16.80   | 5        | —                         | 0.1                   | 11.2        |
| GDZ18LP3    | JL           | 18                           | 17.10   | 18.90   | 5        | —                         | 0.1                   | 12.6        |
| GDZ20LP3    | JM           | 20                           | 19.00   | 21.00   | 5        | —                         | 0.1                   | 14.0        |
| GDZ22LP3    | JN           | 22                           | 20.90   | 23.10   | 5        | —                         | 0.1                   | 15.4        |
| GDZ24LP3    | JO           | 24                           | 22.80   | 25.20   | 5        | —                         | 0.1                   | 16.8        |

- Notes:
- Device mounted on FR-4 PCB with minimum recommended pad layout, as shown in Diodes Incorporated's Suggested Pad Layout document, which can be found on our website at <http://www.diodes.com>.
  - Short duration pulse test used to minimize self-heating effect.



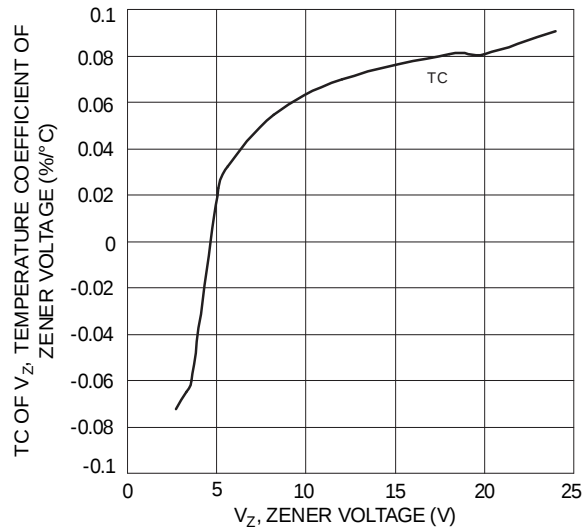
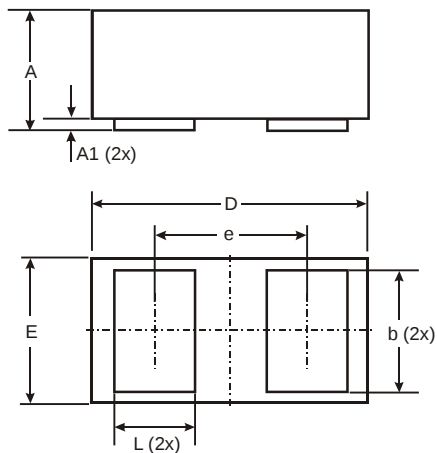


Figure 7 Typical Temperature Coefficient of Zener Voltage vs. Zener Voltage

## Package Outline Dimensions

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

### X3-DFN0603-2

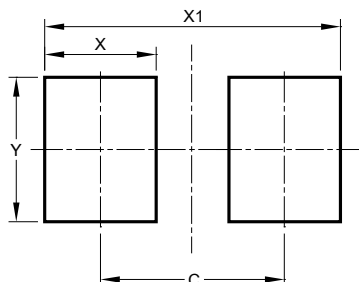


| X3-DFN0603-2         |       |       |       |
|----------------------|-------|-------|-------|
| Dim                  | Min   | Max   | Typ   |
| A                    | 0.27  | 0.35  | 0.30  |
| A1                   | 0.00  | 0.03  | 0.02  |
| b                    | 0.19  | 0.29  | 0.24  |
| D                    | 0.595 | 0.645 | 0.62  |
| E                    | 0.295 | 0.345 | 0.32  |
| e                    | -     | -     | 0.355 |
| L                    | 0.14  | 0.24  | 0.19  |
| All Dimensions in mm |       |       |       |

## Suggested Pad Layout

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

### X3-DFN0603-2



| Dimensions | Value (in mm) |
|------------|---------------|
| C          | 0.380         |
| X          | 0.230         |
| X1         | 0.610         |
| Y          | 0.300         |

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