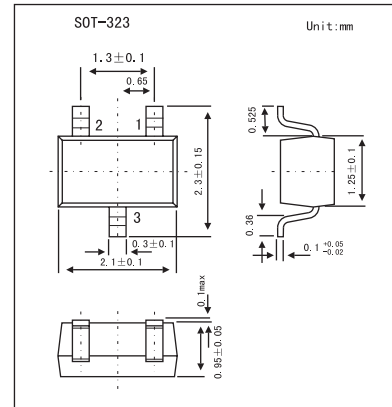
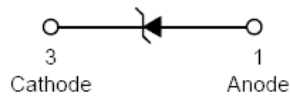


200mW Surface Mount Zener Diode BZX84C12W

Features

- Planar Die Construction
- 200mW Power Dissipation
- Ultra-Small Surface Mount Package



Absolute Maximum Ratings $T_a = 25^\circ\text{C}$

| Parameter | Symbol | Rating | Unit |
|---|-----------------|-------------|------------------|
| Forward Voltage @ $I_F = 10\text{mA}$ | V_F | 0.9 | V |
| Power Dissipation | P_D | 200 | mW |
| Thermal Resistance, Junction to Ambient Air | $R_{\theta JA}$ | 625 | K/W |
| Operating and Storage Temperature Range | T_J, T_{STG} | -65 to +150 | $^\circ\text{C}$ |

Electrical Characteristics @ $T_A = 25^\circ\text{C}$ unless otherwise specified

| Type Number | Zener Voltage Range *1 | | | | Maximum Zener Impedance*2 | | | Maximum Reverse Current *1 | | Temperature Coefficient of Zener Voltage @ $I_{ZT} = 5\text{mA}$ (mV/°C) | |
|-------------|------------------------|---------|---------|----------|---------------------------|-------------------|---------------|----------------------------|---------|--|-----|
| | $V_Z @ I_{ZT}$ | | | I_{ZT} | $Z_{ZT} @ I_{ZT}$ | $Z_{Zk} @ I_{Zk}$ | I_{Zk} | I_R | @ V_R | Min | Max |
| | Nom (V) | Min (V) | Max (V) | mA | Ω | mA | μA | V | | | |
| BZX84C12W | 12 | 11.4 | 12.7 | 5 | 25 | 150 | 1 | 0.1 | 8 | 6 | 10 |

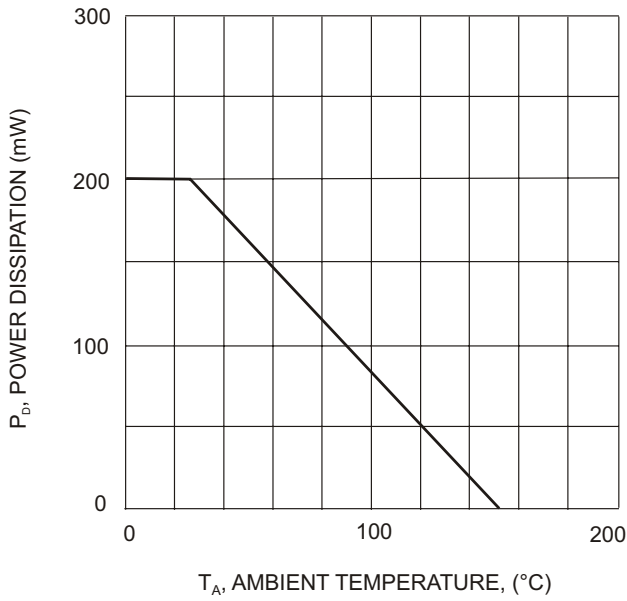
*1. Short duration test pulse used to minimize self-heating effect.

*2. $f = 1\text{kHz}$.

Marking

| | |
|---------|-----|
| Marking | KP2 |
|---------|-----|

BZX84C12W



T_A , AMBIENT TEMPERATURE, (°C)
Fig. 1. Power Derating Curve

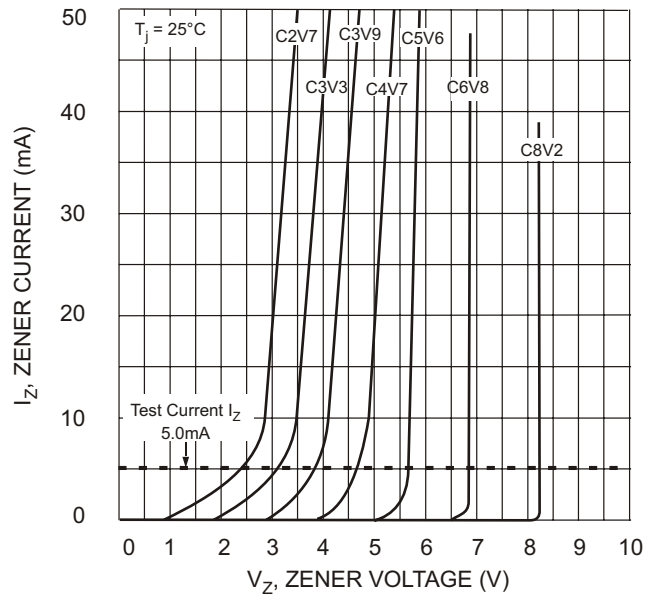


Fig. 2 Zener Breakdown Characteristics

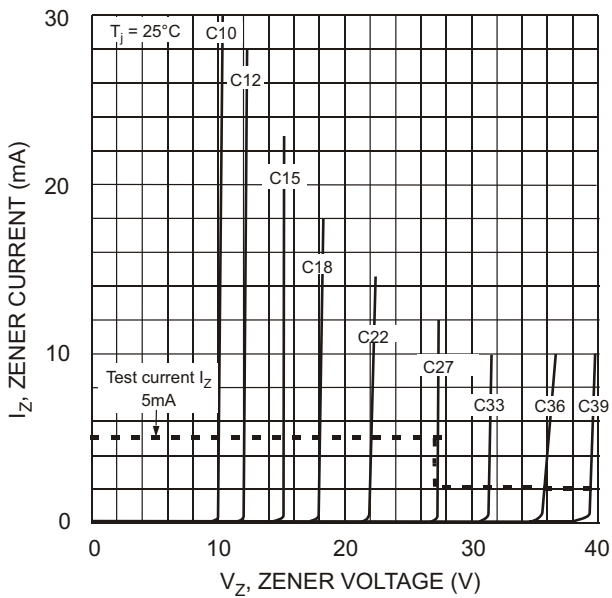


Fig. 3. Zener Breakdown Characteristics

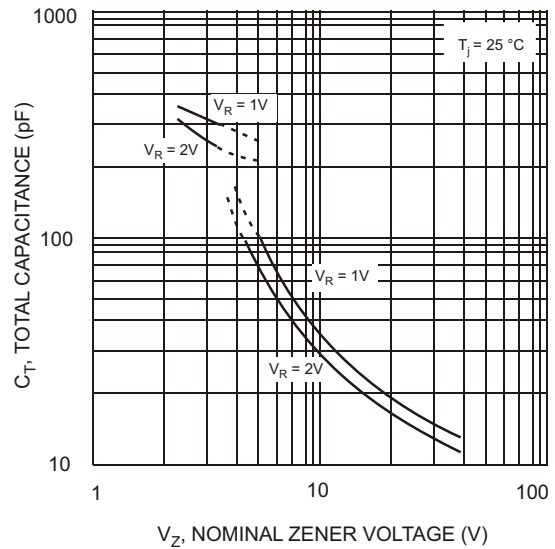


Fig. 4. Total Capacitance vs Nominal Zener Voltage