Surface Mount Zener Diode

BZT55C68

Features

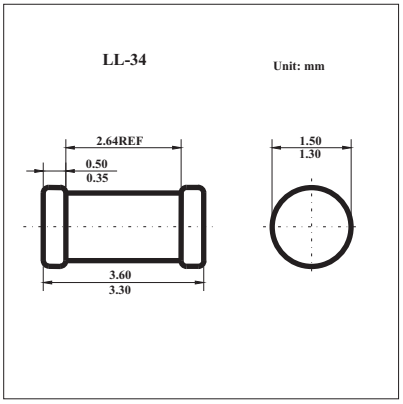
500mW Power Dissipation

Low reverse current level

Very high stability

Low noise

Ideal for Surface Mountted Application



Absolute Maximum Ratings Ta = 25℃

Parameter	Symbol	Rating	Unit
Power Dissipation (Note 1)	P_D	500	mW
Forward Voltage @ I_F = 200mA	V_F	1.5	V
Thermal Resistance, Junction to Ambient Air (Note 1)	$R_{\theta JA}$	300	℃/W
Operating and Storage Temperature Range	T_j, T_{STG}	-65 to +175	℃

Notes: 1. Valid provided that electrodes are kept at ambient temperature.

Electrical Characteristics Ta = 25℃

Type	Zener Voltage Range (Note 2)				Maximum Zener Impedance			Maximum Reverse Current	
	V_Z @ I_{ZT}			I_{ZT}	Z_{ZT} @ I_{ZT}	Z_{ZK} @ I_{ZK}	I_{ZK}	I_R @ V_R	
	Nom (V)	Min (V)	Max (V)	mA	Ω	Ω	mA	μA	V
BZT55C68	68	64	72	2.5	200	1000	0.5	0.1	51

Notes: 2. Tested with pulses, Tp 100ms.

BZT55C68

■ Typical Characteristics

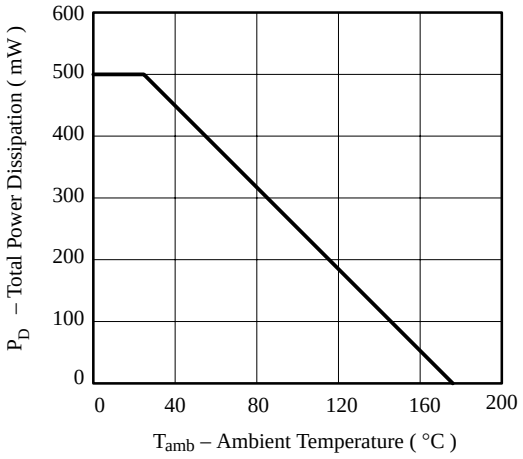


Figure 1. Total Power Dissipation vs. Ambient Temperature

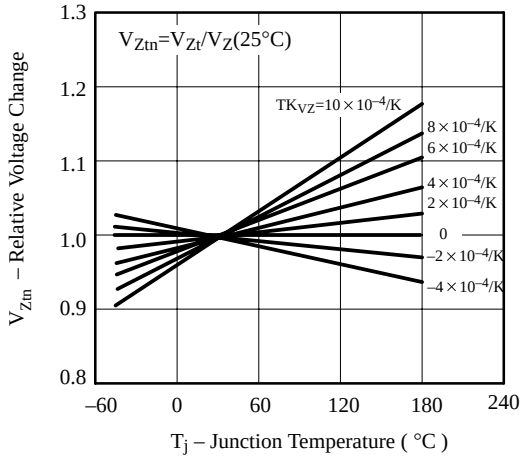


Figure 2. Typical Change of Working Voltage vs. Junction Temperature

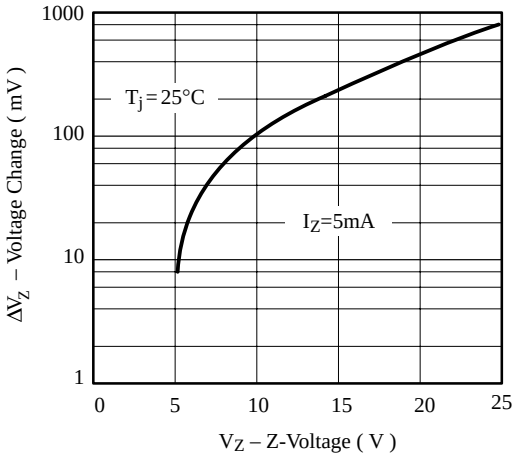


Figure 3. Typical Change of Working Voltage under Operating Conditions at T_{amb}=25˚C

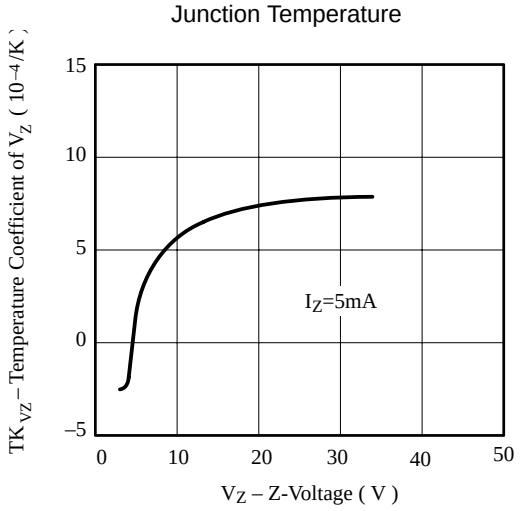


Figure 4. Temperature Coefficient of Vz vs. Z–Voltage

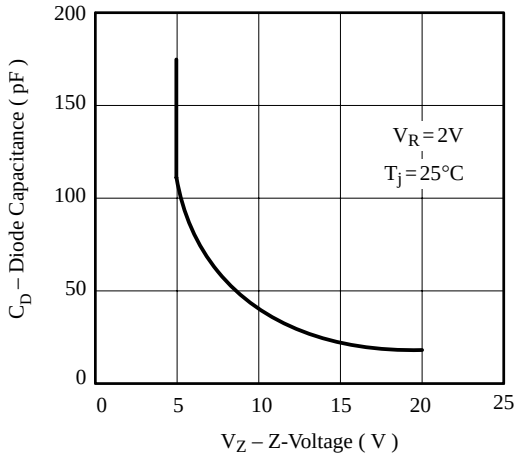


Figure 5. Diode Capacitance vs. Z–Voltage

BZT55C68

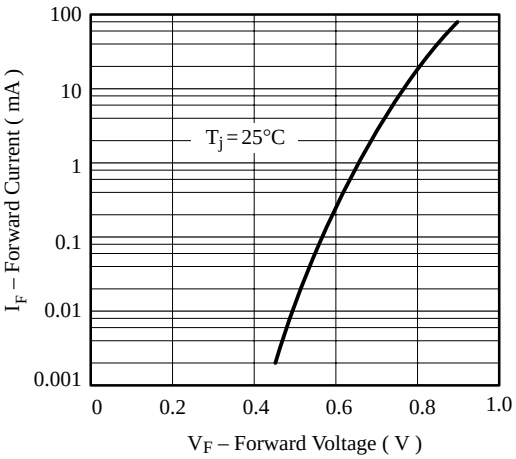


Figure 6. Forward Current vs. Forward Voltage

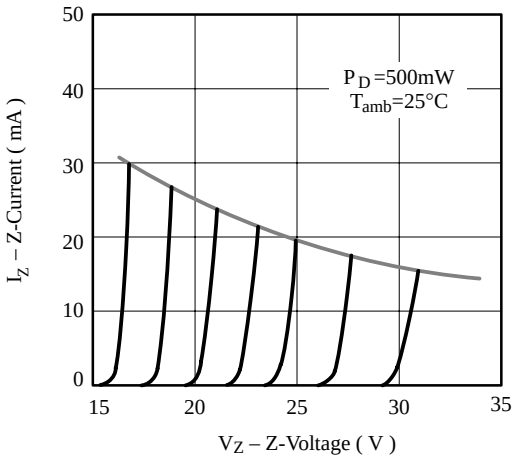


Figure 7. Z–Current vs. Z–Voltage

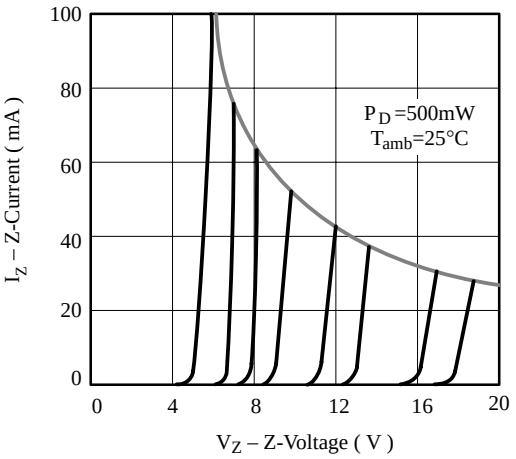


Figure 8. Z–Current vs. Z–Voltage

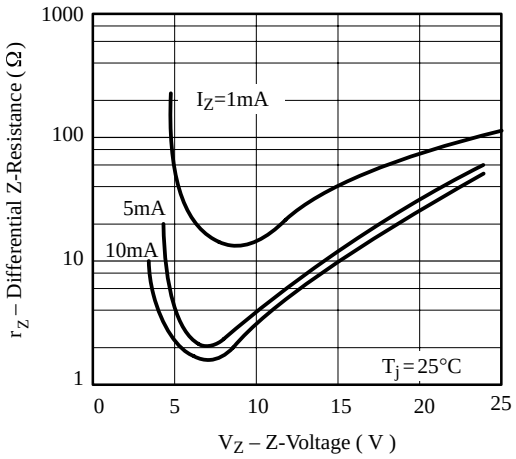


Figure 9. Differential Z–Resistance vs. Z–Voltage

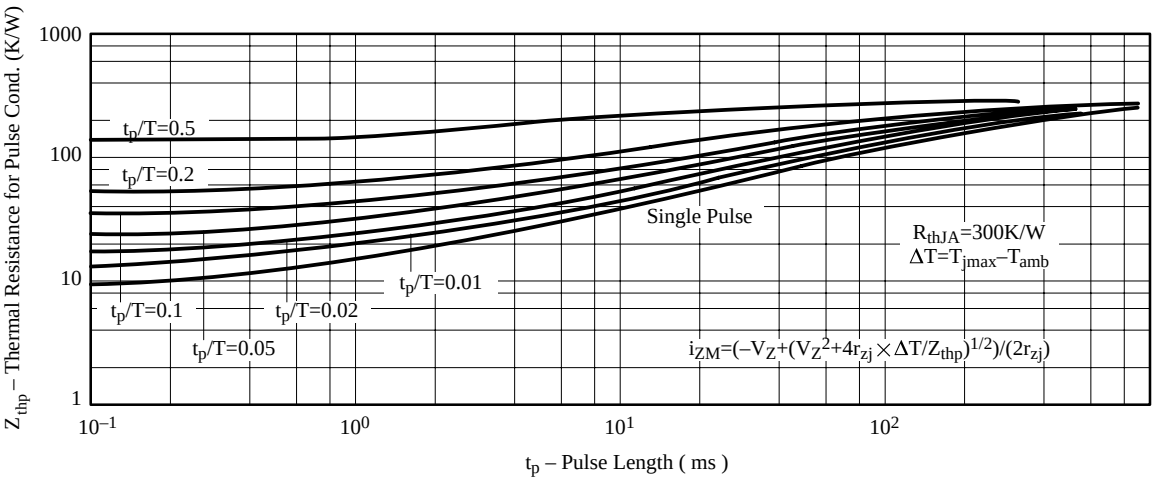


Figure 10. Thermal Response