

Maximum Ratings (@T_A = +25°C, unless otherwise specified.)

Characteristic	Symbol	Value	Unit
Forward Voltage @ I _F = 10mA	V _F	0.9	V

Thermal Characteristics

Characteristic	Symbol	Value	Unit
Power Dissipation (Note 6)	P _D	150	mW
Thermal Resistance, Junction to Ambient Air (Note 6)	R _{θJA}	833	°C/W
Operating and Storage Temperature Range	T _J , T _{STG}	-65 to +150	°C

Notes: 6. Device mounted on FR-4 PC board with recommended pad layout, which can be found on our website at <http://www.diodes.com/products/packages.html>.

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

Type Number	Type Code	Zener Voltage Range (Note 7)				Maximum Reverse Leakage Current (Note 8)	
		V _Z @ I _{ZT}			I _{ZT} μA	I _R @ V _R	
		Nom (V)	Min (V)	Max (V)		μA	V
DDZ9689T	HH	5.1	4.85	5.36	50	5	3
DDZ9690T	HJ	5.6	5.32	5.88	50	2	4
DDZ9691T	HK	6.2	5.89	6.51	50	1	5
DDZ9692T	HL	6.8	6.46	7.14	50	0.1	5.1
DDZ9693T	HM	7.5	7.13	7.88	50	0.1	5.7
DDZ9694T	HN	8.2	7.79	8.61	50	0.1	6.2
DDZ9696T	HP	9.1	8.65	9.56	50	0.1	6.9
DDZ9697T	HQ	10	9.50	10.50	50	0.1	7.6
DDZ9698T	HR	11	10.45	11.55	50	0.05	8.4
DDZ9699T	HS	12	11.40	12.60	50	0.05	9.1
DDZ9700T	HT	13	12.35	13.65	50	0.05	9.8
DDZ9701T	HU	14	13.30	14.70	50	0.05	10.6
DDZ9702T	HV	15	14.25	15.75	50	0.05	11.4
DDZ9703T	HW	16	15.20	16.80	50	0.05	12.1
DDZ9705T	HY	18	17.10	18.90	50	0.05	13.6
DDZ9707T	MD	20	19.00	21.00	50	0.05	15.2
DDZ9708T	ME	22	20.90	23.10	50	0.05	16.7
DDZ9709T	MF	24	22.80	25.20	50	0.05	18.2
DDZ9711T	MH	27	25.65	28.35	50	0.05	20.4
DDZ9712T	MJ	28	26.60	29.40	50	0.05	21.2
DDZ9713T	MK	30	28.50	31.50	50	0.05	22.8
DDZ9714T	ML	33	31.35	34.65	50	0.05	25.0
DDZ9715T	MM	36	34.20	37.80	50	0.05	27.3
DDZ9716T	MN	39	37.05	40.95	50	0.05	29.6
DDZ9717T	MO	43	40.85	45.15	50	0.05	32.6

Notes: 7. Nominal Zener voltage is measured with the device junction in thermal equilibrium at T_J = 30°C ±1°C.
8. Short duration pulse test used to minimize self-heating effect.

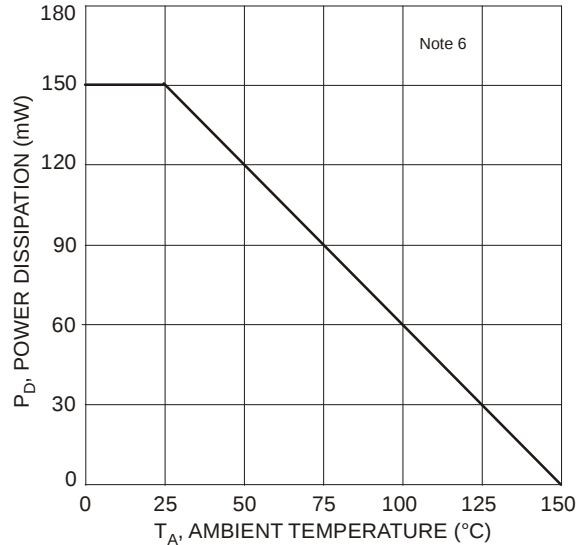


Fig. 1 Power Derating Curve

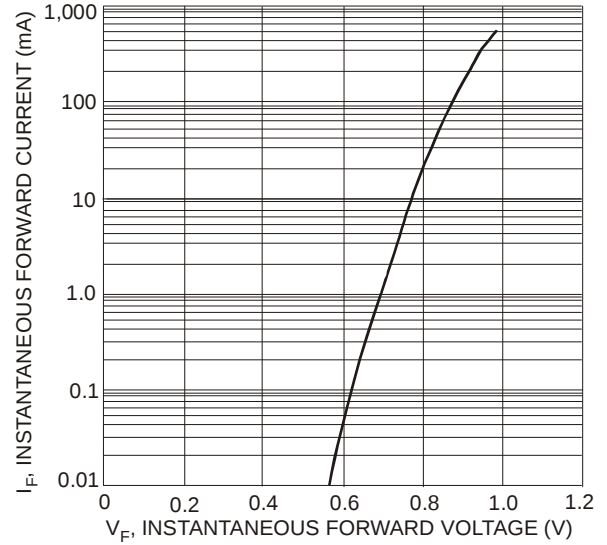


Fig. 2 Typical Forward Characteristics

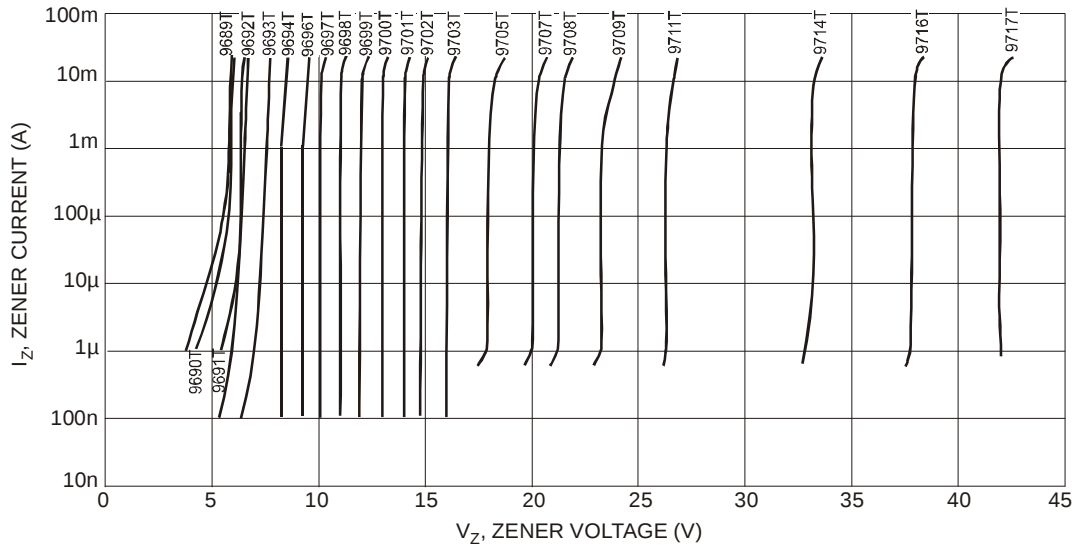


Fig. 3 Typical Zener Breakdown Characteristics

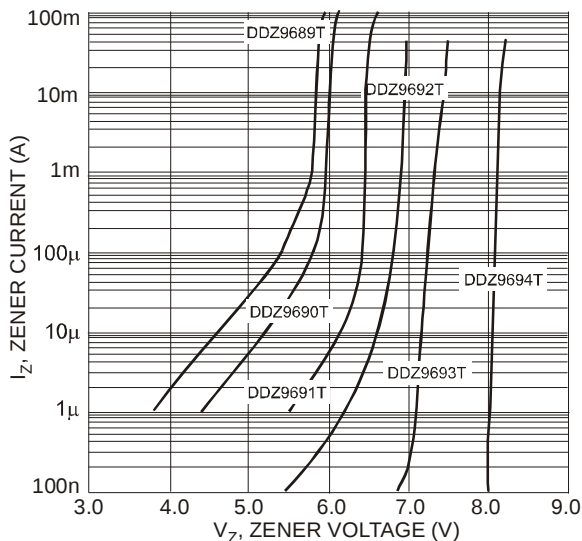


Fig. 4 Typical Zener Breakdown Characteristics,
DDZ9692T - DDZ9694T

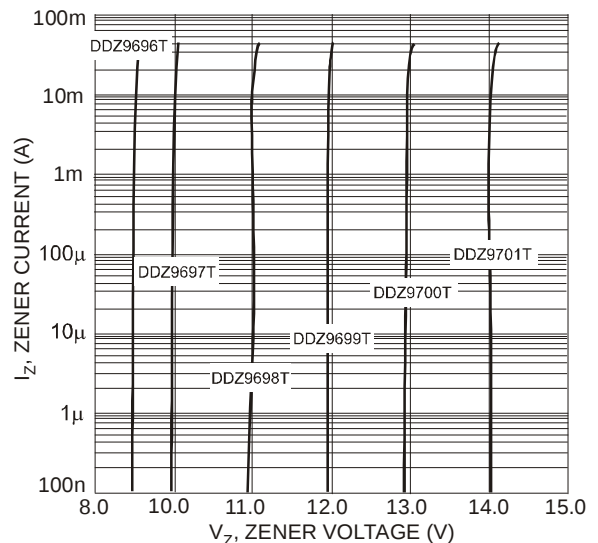


Fig. 5 Typical Zener Breakdown Characteristics,
DDZ9696T - DDZ9701T

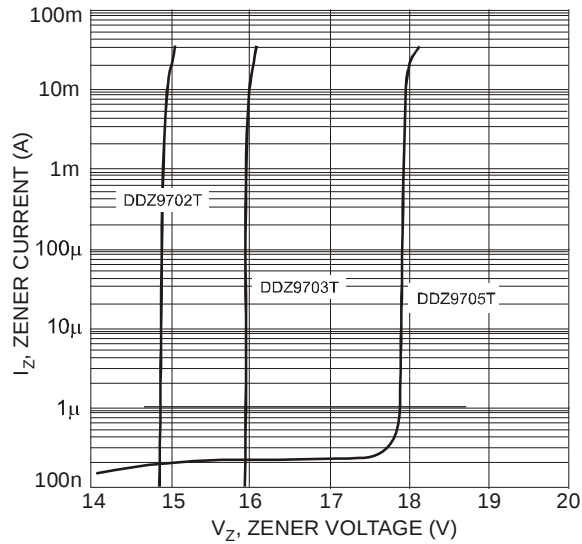


Fig. 6 Typical Zener Breakdown Characteristics, DDZ9702T - DDZ9705T

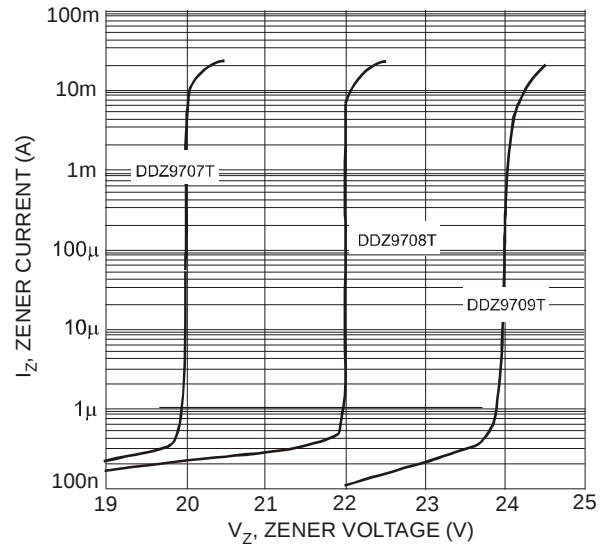


Fig. 7 Typical Zener Breakdown Characteristics, DDZ9707T - DDZ9709T

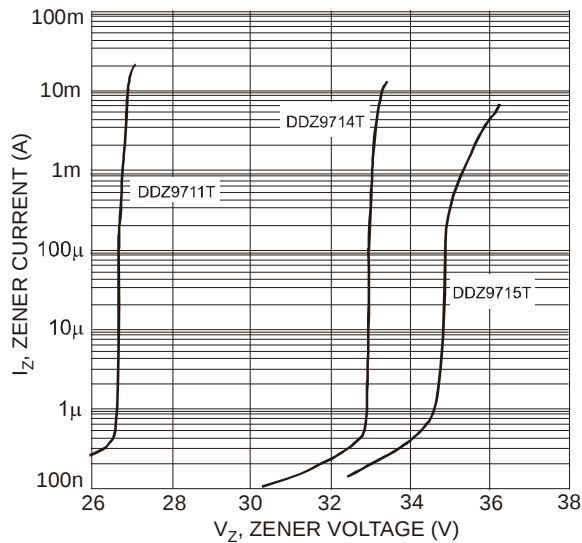


Fig. 8 Typical Zener Breakdown Characteristics, DDZ9711T - DDZ9715T

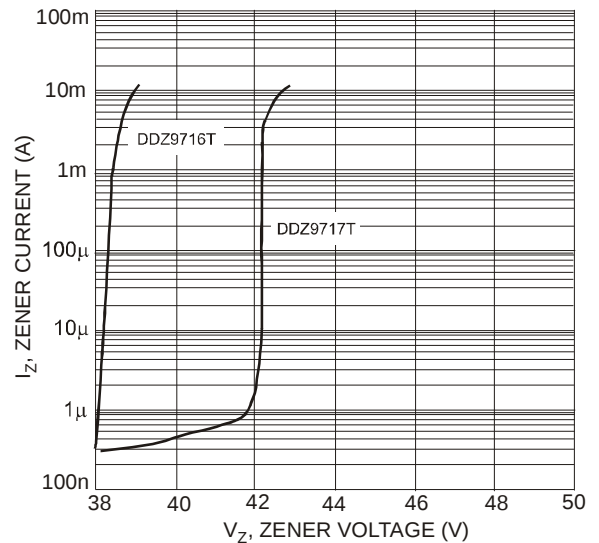


Fig. 9 Typical Zener Breakdown Characteristics, DDZ9716T - DDZ9717T

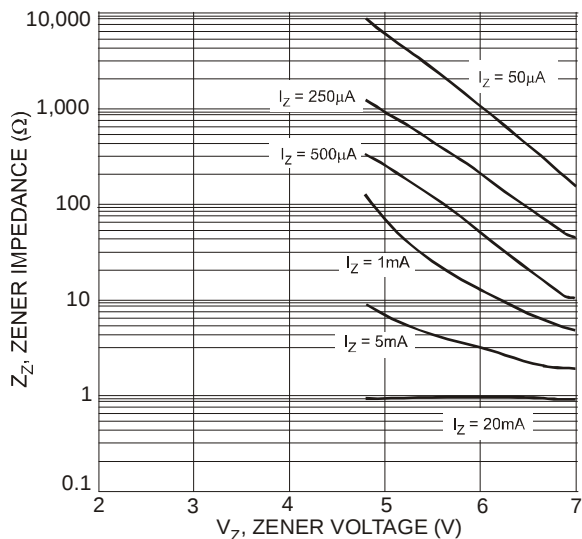


Fig. 10 Typical Zener Impedance Characteristics, DDZ9689T - DDZ9692T

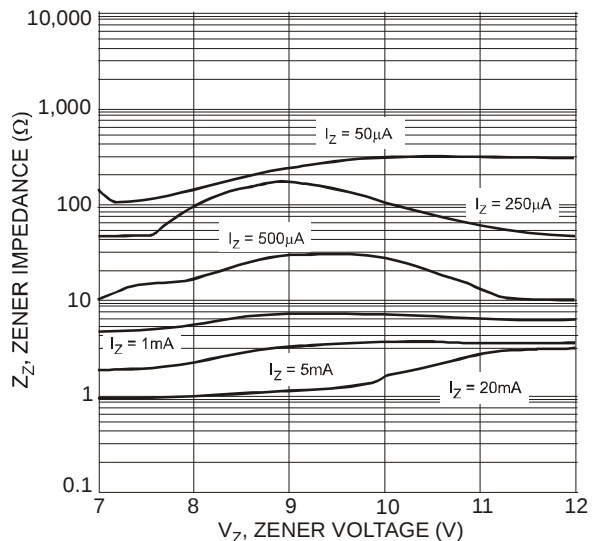


Fig. 11 Typical Zener Impedance Characteristics, DDZ9693T - DDZ9699T

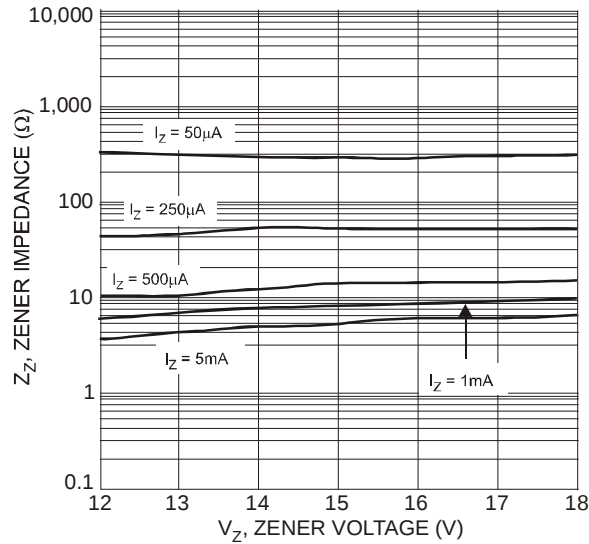


Fig. 12 Typical Zener Impedance Characteristics, DDZ9699T - DDZ9705T

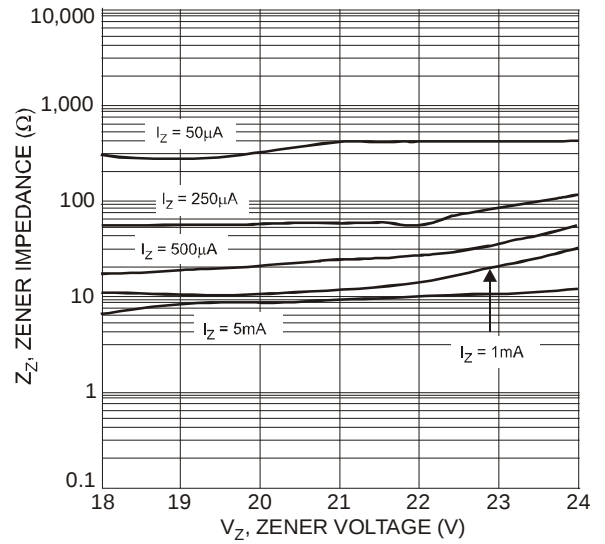


Fig. 13 Typical Zener Impedance Characteristics, DDZ9705T - DDZ9709T

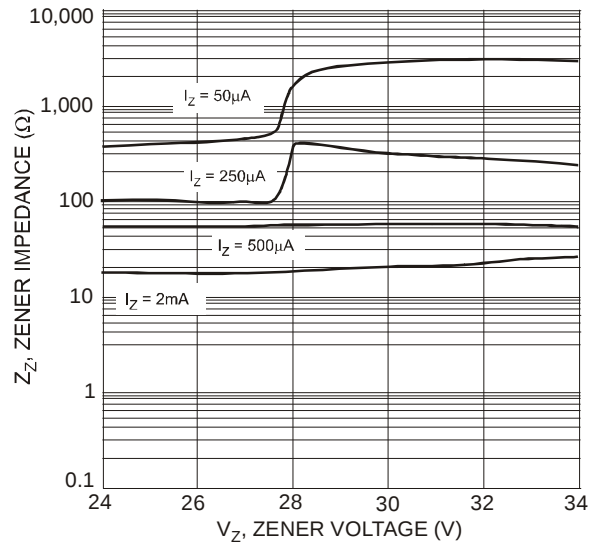


Fig. 14 Typical Zener Impedance Characteristics, DDZ9709T - DDZ9714T

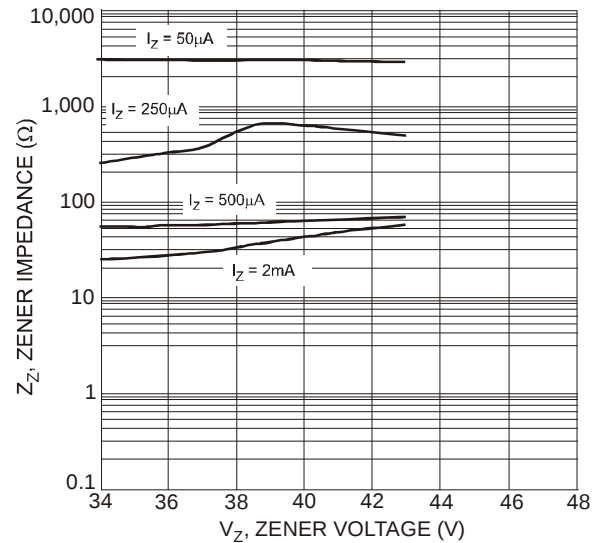


Fig. 15 Typical Zener Impedance Characteristics, DDZ9715T - DDZ9717T

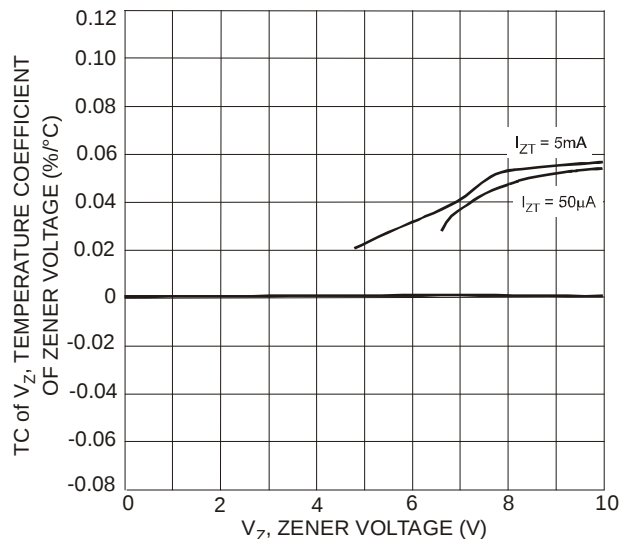


Fig. 16 Typical Temperature Coefficient of Zener Voltage vs. Zener Voltage, DDZ9694T - DDZ9697T

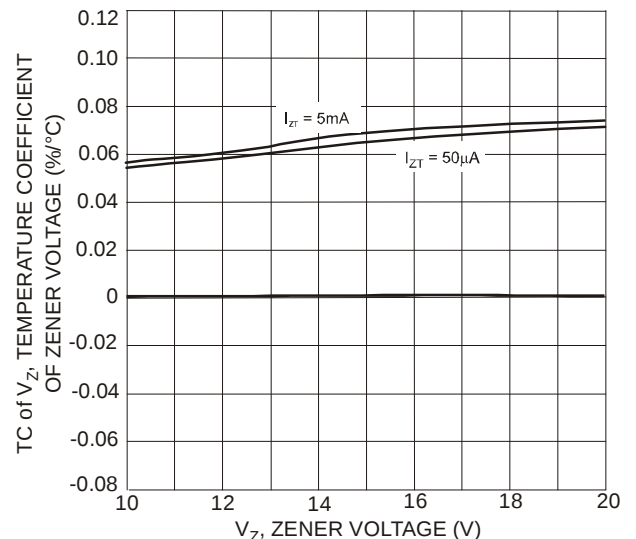


Fig. 17 Typical Temperature Coefficient of Zener Voltage vs. Zener Voltage, DDZ9697T - DDZ9707T

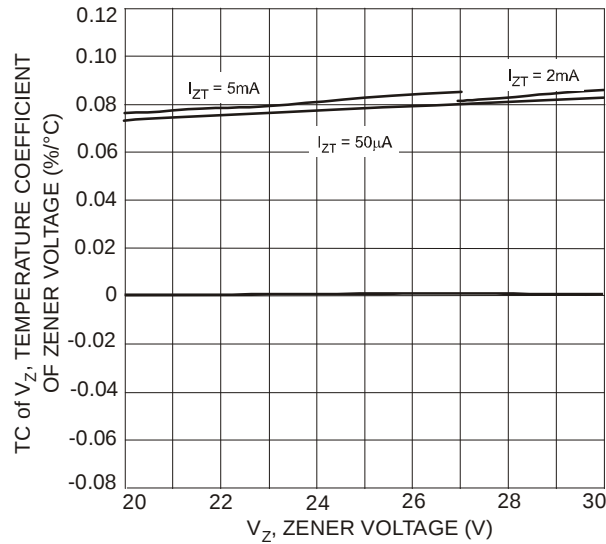


Fig. 18 Typical Temperature Coefficient of Zener Voltage vs. Zener Voltage, DDZ9707T - DDZ9713T

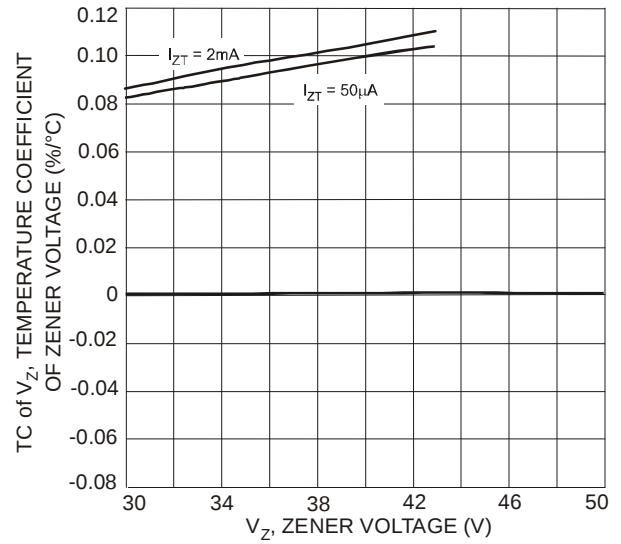
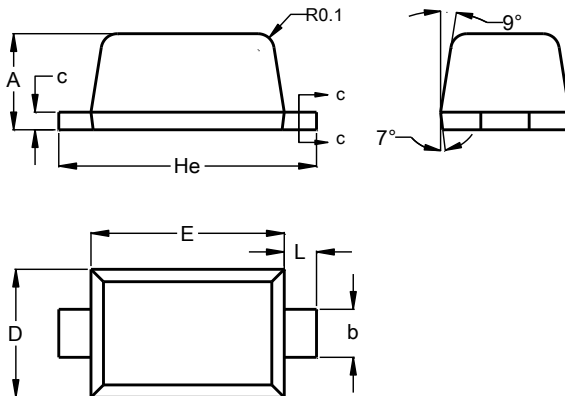


Fig. 19 Typical Temperature Coefficient of Zener Voltage vs. Zener Voltage, DDZ9713T - DDZ9717T

Package Outline Dimensions

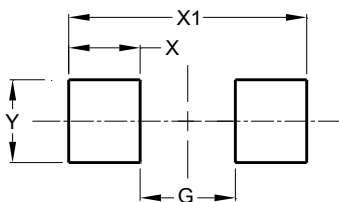
Please see <http://www.diodes.com/package-outlines.html> for the latest version.



SOD523		
Dim	Min	Max
A	0.55	0.65
b	0.26	0.34
c	0.11	0.17
D	0.75	0.85
E	1.15	1.25
He	1.55	1.65
L	0.10	0.30
All Dimensions in mm		

Suggested Pad Layout

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



Dimensions	Value (in mm)
G	0.80
X	0.60
X1	2.00
Y	0.70

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