



1W Zener Diodes

ZD4728ASA thru ZD4755ASA

Features

- 1W power dissipation
- Voltages range from 3.3 to 43V
- Designed for mounting on small surface
- Extremely thin/leadless package

Mechanical Data

- Case : Molded plastic, SMA/JEDEC DO-214AC(SMA)
- Terminals : Solder plated, solderable per MIL-STD-750 method 2026
- Polarity : Indicated by cathode band.
- Mounting position : Any
- Weight : 0.05 gram (approx.)

Absolute Maximum Ratings(Ta=25°C , unless otherwise specified)

Parameter	Condition	Symbol	Min	Typ	Max	Unit
Forward Voltage	I _F =200mA	V _F	-	-	1.2	V
Power Dissipation		P _D	-	-	1	W
Forward surge current	8.3ms single half sine wave superimposed on rated load (JEDEC method)	I _{FSM}	-	-	100	mA
Storage temperature		T _{stg}	-55	-	+125	°C
Operating temperature		T _J	-55	-	+125	°C

**Electrical Characteristics**(Rating at 25°C ambient temperature unless otherwise specified.)

Device	Marking Code	Zener voltage	Test current	Zener impedance			Leakage current		Surge current
		V _Z @I _{ZT}	I _{ZT}	Z _{ZT} @I _{ZT}	Z _{ZK} @I _{ZK}	I _{ZK}	I _R	V _R	I _{surge}
		V	mA	Ω	Ω	mA	μA	V	mA
ZD4728A	Z3V3	3.3	76	10	400	1.0	100	1.0	1380
ZD4729A	Z3V6	3.6	69	10	400	1.0	100	1.0	1260
ZD4730A	Z3V9	3.9	64	9	400	1.0	50	1.0	1190
ZD4731A	Z4V3	4.3	58	9	400	1.0	10	1.0	1070
ZD4732A	Z4V7	4.7	53	8	500	1.0	10	1.0	970
ZD4733A	Z5V1	5.1	49	7	550	1.0	10	1.0	890
ZD4734A	Z5V6	5.6	45	5	600	1.0	10	2.0	810
ZD4735A	Z6V2	6.2	41	2	700	1.0	10	3.0	730
ZD4736A	Z6V8	6.8	37	3.5	700	1.0	10	4.0	660
ZD4737A	Z7V5	7.5	34	4.0	700	0.5	10	5.0	605
ZD4738A	Z8V2	8.2	31	4.5	700	0.5	10	6.0	550
ZD4739A	Z9V1	9.1	28	5	700	0.5	10	7.0	500
ZD4740A	Z10	10	25	7	700	0.25	10	7.6	454
ZD4741A	Z11	11	23	8	700	0.25	5	8.4	414
ZD4742A	Z12	12	21	9	700	0.25	5	9.1	380
ZD4743A	Z13	13	19	10	700	0.25	5	9.9	344
ZD4744A	Z15	15	17	14	700	0.25	5	11.4	304
ZD4745A	Z16	16	15.5	16	700	0.25	5	12.2	285
ZD4746A	Z18	18	14	20	750	0.25	5	13.7	250
ZD4747A	Z20	20	12.5	22	750	0.25	5	15.2	225
ZD4748A	Z22	22	11.5	23	750	0.25	5	16.7	205
ZD4749A	Z24	24	10.5	25	750	0.25	5	18.2	190
ZD4750A	Z27	27	9.5	35	750	0.25	5	20.6	170
ZD4751A	Z30	30	8.5	40	1000	0.25	5	22.8	150
ZD4752A	Z33	33	7.5	45	1000	0.25	5	25.4	135
ZD4753A	Z36	36	7.0	50	1000	0.25	5	27.4	125
ZD4754A	Z39	39	6.5	60	1000	0.25	5	29.7	115
ZD4755A	Z43	43	6.0	70	1500	0.25	5	32.7	105

Note: 5% tolerance of Zener voltage

Characteristic Curves

FIG. 1A Range for Units to 12 Volts

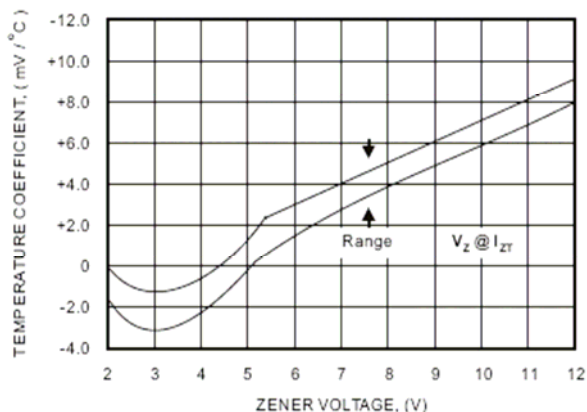


FIG. 1B Range for Units to 12 TO 100 Volts

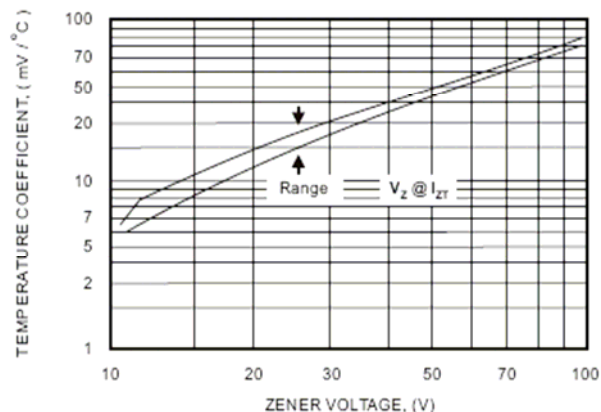


Fig. 2 Temperature Coefficients (-55°C to +150°C temperature change; 90% of the units are in the ranges indicated.)

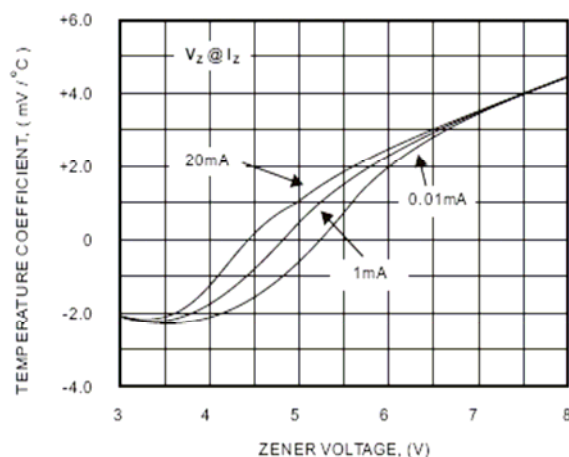
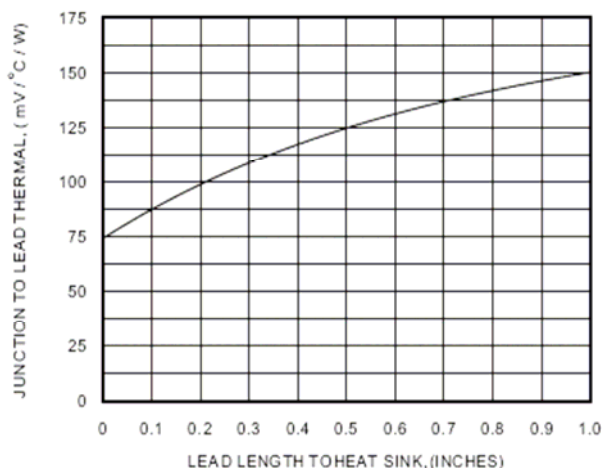


FIG.3 Typical Thermal Resistance versus Lead

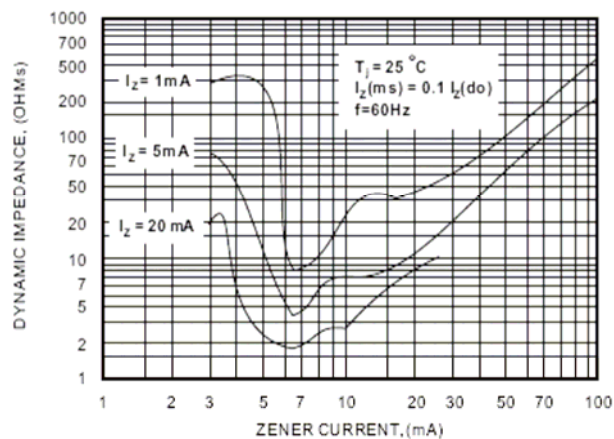
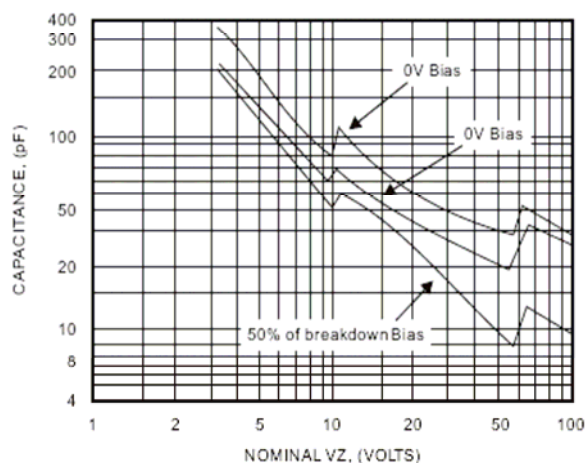
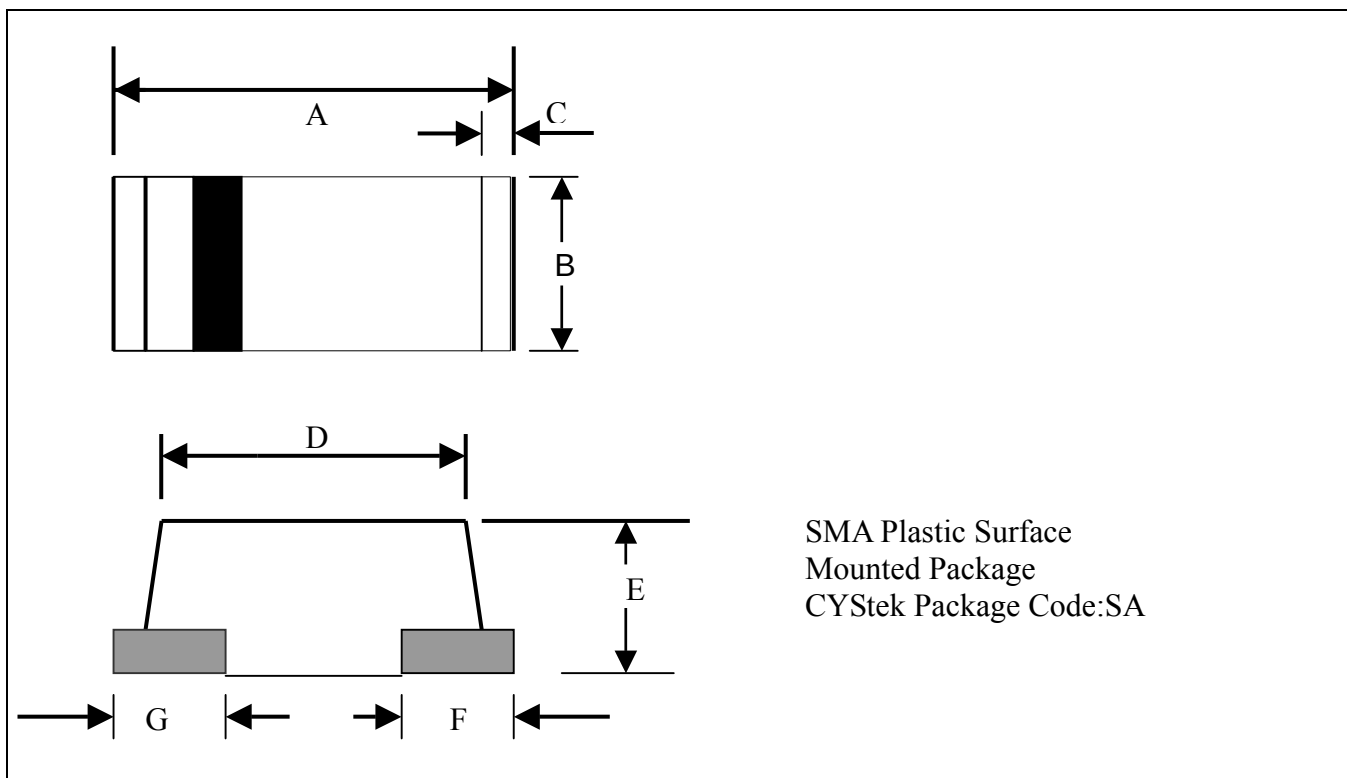


Fig 4. Effect of Zener Current



SMA/DO-214AC Dimension



*:Typical

DIM	Inches		Millimeters		DIM	Inches		Millimeters	
	Min.	Max.	Min.	Max.		Min.	Max.	Min.	Max.
A	0.177	0.185	4.4	4.8	E	0.060	0.067	1.5	1.7
B	0.094	0.110	2.4	2.8	F	0.04(typ)		1.0(typ)	
C	0.012(typ)		0.3(typ)		G	0.04(typ)		1.0(typ)	
D	0.150	0.165	3.8	4.2	-	-	-	-	-

Notes : 1. Controlling dimension : millimeters.

2. Maximum lead thickness includes lead finish thickness, and minimum lead thickness is the minimum thickness of base material.

3. If there is any question with packing specification or packing method, please contact your local CYStek sales office.

Material :

- Lead : 42 Alloy ; solder plating
- Mold Compound : Epoxy resin family, flammability solid burning class:UL94V-0

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