



SMA4728 THRU SMA1330

Surface Mount Zener Diode

Features

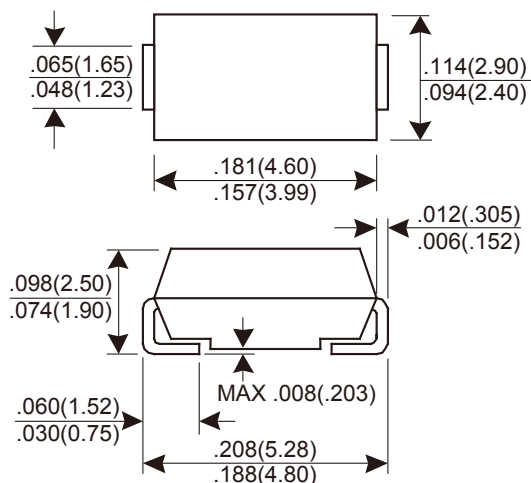
- ★ Ideally suited for automated assembly processes
- ★ Low leakage
- ★ Built-in strain relief
- ★ Low inductance
- ★ High peak reverse power dissipation
- ★ Zener voltage tolerance is $\pm 5\%$

Mechanical Data

- ★ Case: Molded plastic, SMA/DO-214AC
- ★ Epoxy: UL 94V-0 rate flame retardant
- ★ Terminals: Solderable per MIL-STD-750, method 2026
- ★ Polarity: Color band denotes cathode end
- ★ Mounting position: Any

Zener Voltage 3.3 to 330 V
Power Dissipation 1.0 Watts

SMA/DO-214AC



Dimensions in inches and (millimeters)

MAXIMUM RATINGS

$T_A = 25^\circ\text{C}$ unless otherwise noted

PARAMETER	SYMBOL	VALUE	UNIT
DC power dissipation at $T_L=75^\circ\text{C}$	P_D	1	W
Junction temperature range	T_J	-55 to +150	$^\circ\text{C}$
Storage temperature range	T_{STG}	-55 to +150	$^\circ\text{C}$

ORDERING INFORMATION

Part Number	Package	Weight	Quantity	Delivery Mode
SMA47xx SMA1xx0	SMA / DO-214AC	0.064 g	5,000	13" diameter plastic tape and reel

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Electrical Characteristics($T_A=25^{\circ}\text{C}$ unless otherwise noted)

Part Number	Device Marking Code	Zener Voltage $V_Z@I_{ZT}$			Maximum Zener Impedance			Maximum Reverse Leakage Current $I_R@V_R$		Maximum DC Zener Current	Maximum Surge Current
		Min (V)	Max (V)	I_{ZT} (mA)	$Z_{ZT}@I_{ZT}$ (Ω)	$Z_{ZK}@I_{ZK}$ (Ω)	I_{ZK} (mA)	I_R (μA)	V_R (V)	I_{ZM} (mA)	I_{RM} (mApk)
SMA4728	A4728	3.1	3.5	76.0	10.0	400	1.00	100	1.0	276	1380
SMA4729	A4729	3.4	3.8	69.0	10.0	400	1.00	100	1.0	252	1260
SMA4730	A4730	3.7	4.1	64.0	9.0	400	1.00	50	1.0	234	1190
SMA4731	A4731	4.1	4.5	58.0	9.0	400	1.00	10	1.0	217	1070
SMA4732	A4732	4.5	4.9	53.0	8.0	500	1.00	10	1.0	193	970
SMA4733	A4733	4.8	5.4	49.0	7.0	550	1.00	10	1.0	178	890
SMA4734	A4734	5.3	5.9	45.0	5.0	600	1.00	10	2.0	162	810
SMA4735	A4735	5.9	6.5	41.0	2.0	700	1.00	10	3.0	146	730
SMA4736	A4736	6.5	7.1	37.0	3.5	700	1.00	10	4.0	133	660
SMA4737	A4737	7.1	7.9	34.0	4.0	700	0.50	10	5.0	121	605
SMA4738	A4738	7.8	8.6	31.0	4.5	700	0.50	10	6.0	110	550
SMA4739	A4739	8.6	9.6	28.0	5.0	700	0.50	10	7.0	100	500
SMA4740	A4740	9.5	10.5	25.0	7.0	700	0.25	10	7.6	91	454
SMA4741	A4741	10.5	11.6	23.0	8.0	700	0.25	5	8.4	83	414
SMA4742	A4742	11.4	12.6	21.0	9.0	700	0.25	5	9.1	76	380
SMA4743	A4743	12.4	13.7	19.0	10	700	0.25	5	9.9	69	344
SMA4744	A4744	14.3	15.8	17.0	14	700	0.25	5	11.4	61	304
SMA4745	A4745	15.2	16.8	15.5	16	700	0.25	5	12.2	57	285
SMA4746	A4746	17.1	18.9	14.0	20	750	0.25	5	13.7	50	250
SMA4747	A4747	19.0	21.0	12.5	22	750	0.25	5	15.2	45	225
SMA4748	A4748	20.9	23.1	11.5	23	750	0.25	5	16.7	41	205
SMA4749	A4749	22.8	25.2	10.5	25	750	0.25	5	18.2	38	190
SMA4750	A4750	25.7	28.4	9.5	35	750	0.25	5	20.6	34	170
SMA4751	A4751	28.5	31.5	8.5	40	1000	0.25	5	22.8	30	150
SMA4752	A4752	31.4	34.7	7.5	45	1000	0.25	5	25.1	27	135
SMA4753	A4753	34.2	37.8	7.0	50	1000	0.25	5	27.4	25	125
SMA4754	A4754	37.1	41.0	6.5	60	1000	0.25	5	29.7	23	115
SMA4755	A4755	40.9	45.2	6.0	70	1500	0.25	5	32.7	22	110
SMA4756	A4756	44.7	49.4	5.5	80	1500	0.25	5	35.8	19	95
SMA4757	A4757	48.5	53.6	5.0	95	1500	0.25	5	38.8	18	90
SMA4758	A4758	53.2	58.8	4.5	110	2000	0.25	5	42.6	16	80
SMA4759	A4759	58.9	65.1	4.0	125	2000	0.25	5	47.1	14	70
SMA4760	A4760	64.6	71.4	3.7	150	2000	0.25	5	51.7	13	65
SMA4761	A4761	71.3	78.8	3.3	175	2000	0.25	5	56.0	12	60
SMA4762	A4762	77.9	86.1	3.0	200	3000	0.25	5	62.2	11	55
SMA4763	A4763	86.5	95.6	2.8	250	3000	0.25	5	69.2	10	50
SMA4764	A4764	95.0	105.0	2.5	350	3000	0.25	5	76.0	9.0	45
SMA1110	A1110	104.5	115.5	2.3	450	4000	0.25	5	83.6	8.6	40
SMA1120	A1120	114.0	126.0	2.0	550	4500	0.25	5	91.2	7.8	37
SMA1130	A1130	123.5	136.5	1.9	700	5000	0.25	5	98.8	7.0	34
SMA1150	A1150	142.5	157.5	1.7	1000	6000	0.25	5	114.0	6.4	30
SMA1160	A1160	152.0	168.0	1.6	1100	6500	0.25	5	121.6	5.8	28
SMA1180	A1180	171.0	189.0	1.4	1200	7000	0.25	5	136.8	5.2	25
SMA1200	A1200	190.0	210.0	1.2	1500	8000	0.25	5	152.0	4.7	22
SMA1220	A1220	209.0	231.0	1.0	1600	8000	0.25	5	167.2	4.0	20
SMA1240	A1240	228.0	252.0	0.9	1800	8500	0.25	5	182.4	3.8	19
SMA1250	A1250	237.5	262.5	0.9	2000	9000	0.25	5	190.0	3.6	18
SMA1270	A1270	256.5	283.5	0.8	2100	9000	0.25	5	205.0	3.3	16
SMA1300	A1300	285.0	315.0	0.8	2300	9500	0.25	5	228.0	3.0	15
SMA1330	A1330	313.5	346.5	0.7	2500	9500	0.25	5	250.2	2.7	13

The reverse surge current is a non-repetitive, 8.3ms pulse width square wave or equivalent sine-wave superimposed on I_{ZT} per JEDEC method

RATINGS AND CHARACTERISTICS CURVES SMA4728 THRU SMA1330

Fig.1 - Power Derating Curve

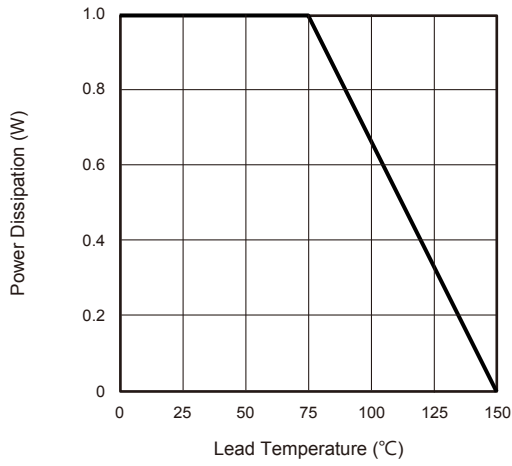


Fig.2 - Typical Instantaneous Forward Characteristics

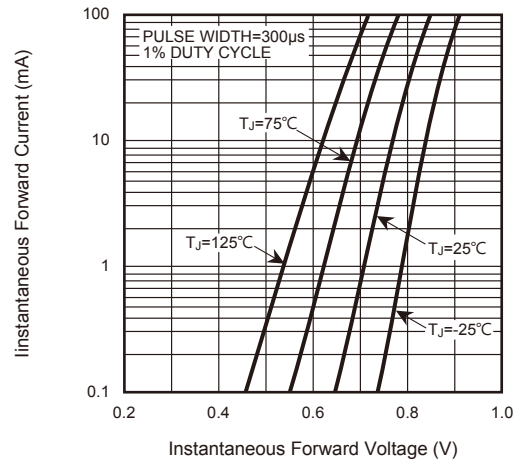


Fig.3 - Effect of Zener Current on Zener Impedance

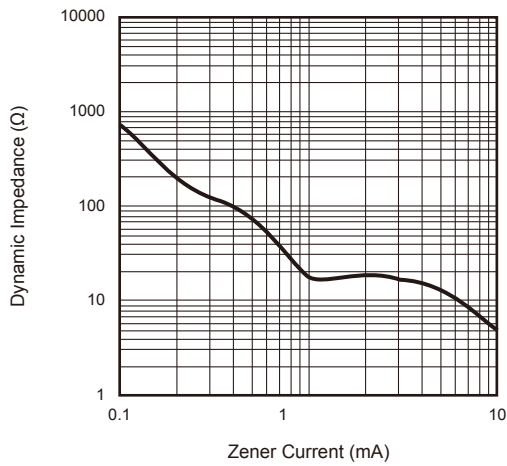


Fig.4 - V_R - I_R Characteristics

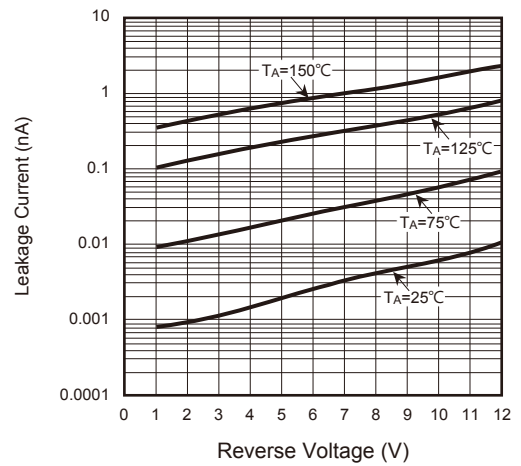


Fig.5 - V_R - C_T Characteristics

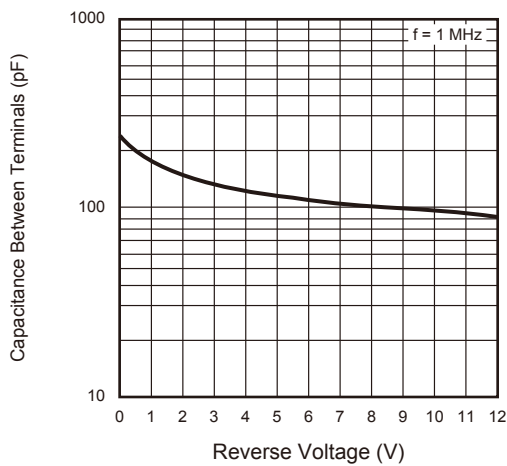


Fig.6 - Temperature Coefficients

