1SMA4728A THRU 1SMA4764A

Zener Diodes 1W

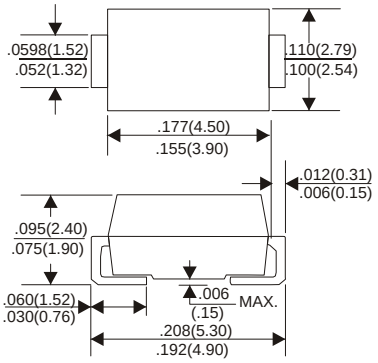
FEATURES:

- ZENER impedance at low current is small
- High reliability
- And welding hot 250 ℃ 10s

MECHANICAL DATA:

- Case: Molded plastic
- Epoxy：UL94V-0 rate flame retardant
- Polarity: Color band denotes cathode end
- Mounting position: Any
- Weight: 0.066gram
- Lead Free Finish/RoHS Compliant

SMA/DO-214AC（SMA）



1.0 WATT SURFACE MOUNTSILICON ZENER DIODES

Dimensions in inches and (millimeters)

MAXIMUM RATINGS AND ELECRICAL CHARACTERISTICS

Rating at 25℃ ambient temperature unless otherwise specified.

Parameters	SYMBOL	VALUE	UNITS
ZENER Current	I_Z MAX	See table	mA
Power dissipation @TL=75℃(Note1)	Pt	1.0	W
forward voltage@IF=200mA	VF	1.5	V
Thermal Resistances (Junction to Ambient ,Note1)	$R_{\theta(ja)}$	32	℃/W
Store temperature range	T_J,T_{STG}	-55～+150	℃

NOTES :

1. Thermal Resistance from Junction to terminal mounted on 5×5mm copper pad area.

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Type No.	Nominal Zener Voltage	Test Current	Maximum Zener Impedance			Maximum Reverse Leakage Current		Maximum DC Zener Current	Maximum Surge Current
	VZ@IZT	IZT	ZZT@IZT	ZZK@IZK	IZK	IR @ VR		IZM	IRM(2)
	(V)	(mA)	(Ω)	(Ω)	(mA)	(uA)	(V)	(mA)	(mApk)
1SMA4728A	3.3	76.0	10	400	1.0	100	1.0	276	1380
1SMA4729A	3.6	69.0	10	400	1.0	100	1.0	252	1260
1SMA4730A	3.9	58.0	9.0	400	1.0	50	1.0	234	1190
1SMA4731A	4.3	58.0	9.0	400	1.0	10	1.0	217	1070
1SMA4732A	4.7	53.0	8.0	500	1.0	10	1.0	193	970
1SMA4733A	5.1	49.0	7.0	500	1.0	10	1.0	178	890
1SMA4734A	5.6	45.0	5.0	500	1.0	10	2.0	162	810
1SMA4735A	6.2	41.0	2.0	700	1.0	10	3.0	146	730
1SMA4736A	6.8	37.0	3.5	700	1.0	50	4.0	133	660
1SMA4737A	7.5	34.0	4.0	700	0.5	50	5.0	121	605
1SMA4738A	8.2	31.0	4.5	700	0.5	50	6.0	110	550
1SMA4739A	9.1	28.0	5.0	700	0.5	50	7.0	100	500
1SMA4740A	10	25.0	7.0	700	0.25	50	7.6	91	454
1SMA4741A	11	23.0	8.0	700	0.25	50	8.4	83	414
1SMA4742A	12	21.0	9.0	700	0.25	5.0	9.1	76	380
1SMA4743A	13	19.0	10	700	0.25	5.0	9.9	69	144
1SMA4744A	15	17.0	14	700	0.25	5.0	11.4	61	305
1SMA4745A	16	15.5	16	700	0.25	5.0	12.2	57	285
1SMA4746A	18	14.0	20	750	0.25	5.0	13.7	50	250
1SMA4747A	20	12.5	22	750	0.25	5.0	15.2	45	225
1SMA4748A	22	11.5	23	750	0.25	5.0	16.7	41	205
1SMA4749A	24	10.5	25	750	0.25	5.0	18.2	38	190
1SMA4750A	27	9.5	35	750	0.25	5.0	20.6	34	170
1SMA4751A	30	8.5	40	1000	0.25	5.0	22.8	30	150
1SMA4752A	33	7.5	45	1000	0.25	5.0	25.1	27	135
1SMA4753A	36	7.0	50	1000	0.25	5.0	27.4	25	125
1SMA4754A	39	6.5	60	1000	0.25	5.0	29.7	23	115
1SMA4755A	43	6.0	70	1500	0.25	5.0	32.7	22	110
1SMA4756A	47	5.5	80	1500	0.25	5.0	35.8	19	95
1SMA4757A	51	5.0	95	1500	0.25	5.0	38.8	18	90
1SMA4758A	56	4.5	110	2000	0.25	5.0	42.6	16	80
1SMA4759A	62	4.0	125	2000	0.25	5.0	47.1	14	70
1SMA4760A	68	3.7	150	2000	0.25	5.0	51.7	13	65
1SMA4761A	75	3.3	175	2000	0.25	5.0	56.0	12	60
1SMA4762A	82	3.0	200	3000	0.25	5.0	62.2	11	55
1SMA4763A	91	2.8	2.5	3000	0.25	5.0	69.2	10	50
1SMA4764A	100	2.5	350	3000	0.25	5.0	76.0	9.0	45

Note:

Suffix"A"indi cates±5% tolerance

RATING AND CHARACTERISTICS CURVES

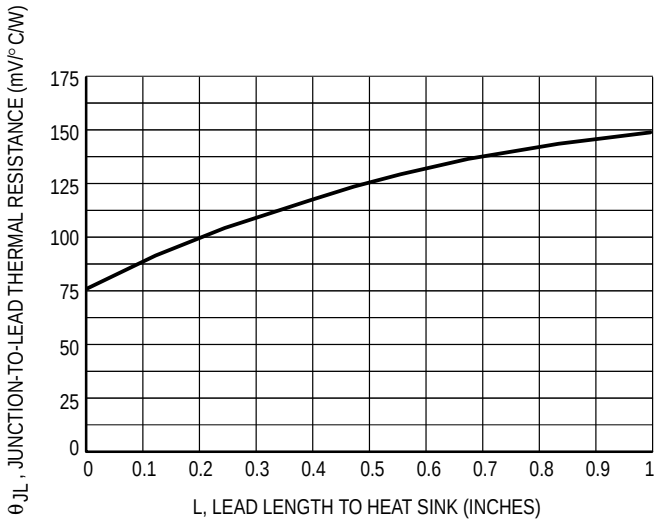


Figure 1. Typical Thermal Resistance versus Lead Length

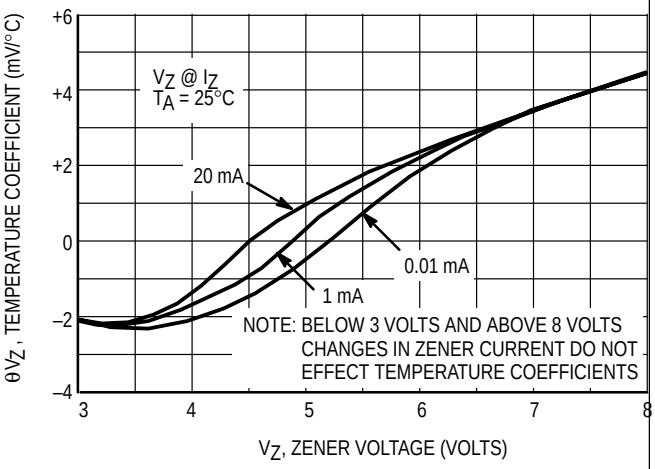


Figure 2. Effect of Zener Current

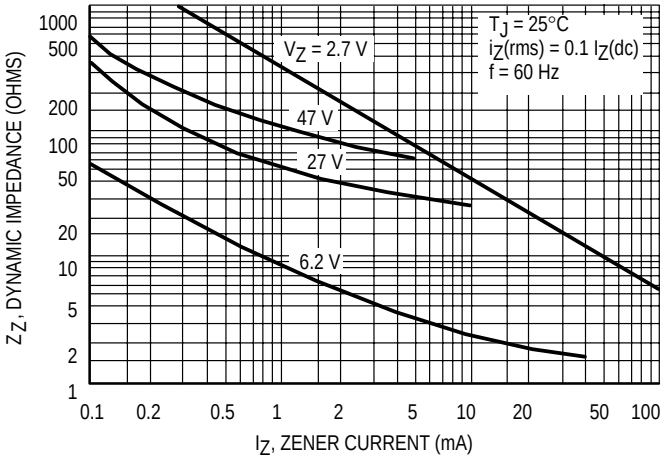


Figure 3. Effect of Zener Current on Zener Impedance

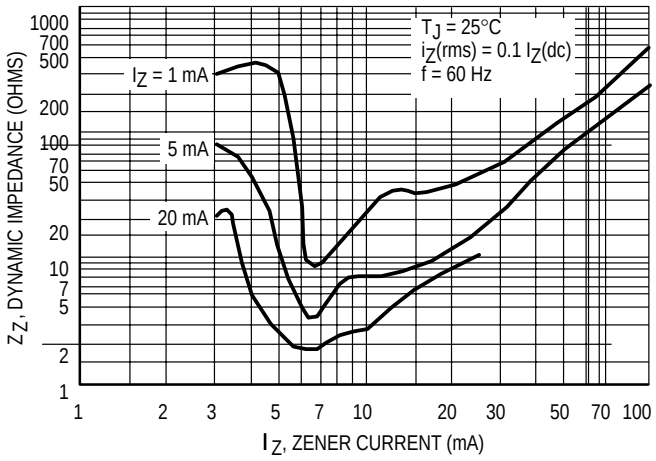
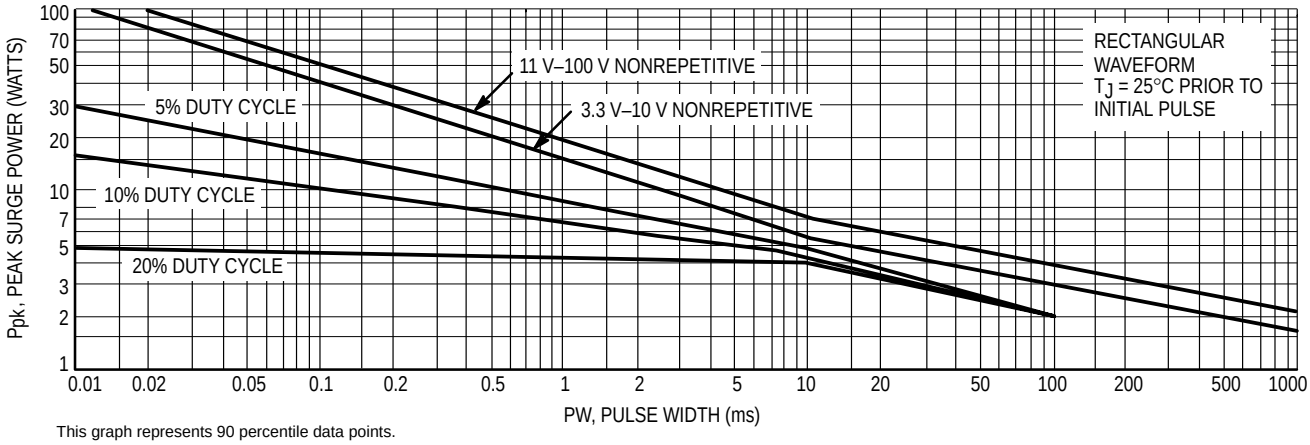


Figure 4. Effect of Zener Voltage on Zener Impedance

RATING AND CHARACTERISTICS CURVES



This graph represents 90 percentile data points.
For worst case design characteristics, multiply surge power by 2/3.

Figure 5. Maximum Surge Power

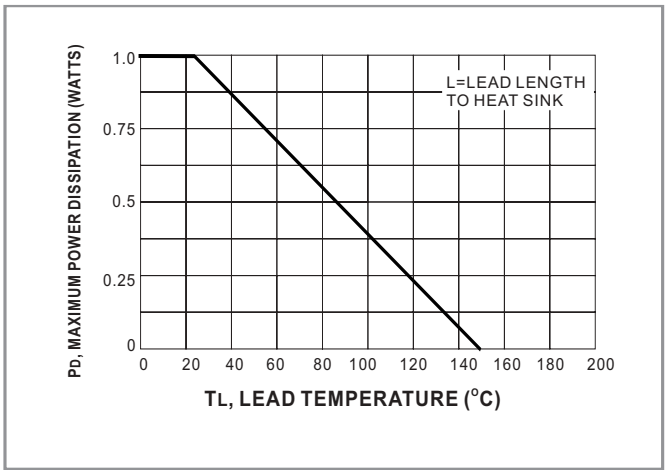


Figure. 6 power temperature derating curve