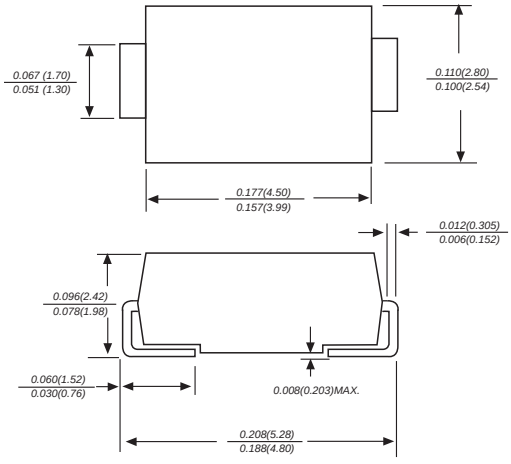
1SMA4728 THRU 1SMA200A

ZENER DIODES

Zener Voltage: 3.3-200V Peak Pulse Power: 1W

DO-214AC/SMA



Dimensions in inches and (millimeters)

FEATURE

- For surface mounted applications in order to optimize board space
- Low profile package
- Built-in strain relief
- Glass passivated junction
- Low inductance
- Typical I_R less than 5.0 μA above 11V
- High temperature soldering guaranteed: 260^{O}C / 10 seconds at terminals
- Plastic package has Underwriters Laboratory Flammability Classification 94V-0

MECHANICAL DATA

Case: Molded plastic over passivated junction

Terminals: Plated leads, solderable per MIL-STD 750, method 2025

Polarity: Color band denotes cathode end

Standard packaging: 12mm tape (EIA-481)

Weight: 0.002 ounce,0.07 gram

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25℃ ambient temperature unless otherwise specified.

MDD Catalog Number	*SYMBOLS*	*VALUE*	*UNITS*
Peak Power Dissipation at T_A=50^{O}C, Derate above 50 ^{O}C (Note 1)	P_D	1.0 6.67	Watts mW/ ^{O}C
Peak Forward Surge Current, 8.3 ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method) (Note 2)	I_{FSM}	10.0	Amps
Operating and Storage Temperature Range	T_J, T_{STG}	-55 to + 150	^{O}C

Notes: 1. Mounted on 5.0mm^2 (0.013mm thick) land areas.
2. Measured on 8.3ms Single Half Sine-wave or Equivalent Square Wave, Duty Cycle=4 Pulses Per Minute Maximum.

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ELECTRICAL CHARACTERISTICS (T_A=25°C unless otherwise noted) V_F=1.2V max, I_F=200mA for all types.

Part Number	V_Z @ I_{ZT}			Maximum Zener Impedance				Maximum Leakage Current		Marking Code	Package
				Z_{ZT} @ I_{ZT}		Z_{ZK} @ I_{ZK}		I_R @V_R			
	Nom. V	Min. V	Max. V	O	mA	O	mA	uA	V		
1.0 Watt ZENER Diodes -- continued											
1SMA4728	3.3	3.1	3.5	10.0	76.0	400	1.00	100	1.0	728A	SMA
1SMA4729	3.6	3.4	3.8	10.0	69.0	400	1.00	100	1.0	729A	SMA
1SMA4730	3.9	3.7	4.1	9.0	64.0	400	1.00	50	1.0	730A	SMA
1SMA4731	4.3	4.1	4.5	9.0	58.0	400	1.00	10	1.0	731A	SMA
1SMA4732	4.7	4.5	4.9	8.0	53.0	500	1.00	10	1.0	732A	SMA
1SMA4733	5.1	4.8	5.4	7.0	49.0	550	1.00	10	1.0	733A	SMA
1SMA4734	5.6	5.3	5.9	5.0	45.0	600	1.00	10	2.0	734A	SMA
1SMA4735	6.2	5.9	6.5	2.0	41.0	700	1.00	10	3.0	735A	SMA
1SMA4736	6.8	6.5	7.1	3.5	37.0	700	1.00	10	4.0	736A	SMA
1SMA4737	7.5	7.1	7.9	4.0	34.0	700	0.50	10	5.0	737A	SMA
1SMA4738	8.2	7.8	8.6	4.5	31.0	700	0.50	10	6.0	738A	SMA
1SAM4739	9.1	8.6	9.6	5.0	28.0	700	0.50	10	7.0	739A	SMA
1SMA4740	10.0	9.5	10.5	7.0	25.0	700	0.25	10	7.6	740A	SMA
1SMA4741	11.0	10.5	11.6	8.0	23.0	700	0.25	5.0	8.4	741A	SMA
1SMA4742	12.0	11.4	12.6	9.0	21.0	700	0.25	5.0	9.1	742A	SMA
1SMA4743	13.0	12.4	13.7	10.0	19.0	700	0.25	5.0	9.9	743A	SMA
1SMA4744	15.0	14.3	15.8	14.0	17.0	700	0.25	5.0	11.4	744A	SMA
1SMA4745	16.0	15.2	16.8	16.0	15.5	700	0.25	5.0	12.2	745A	SMA
1SMA4746	18.0	17.1	18.9	20.0	14.0	750	0.25	5.0	13.7	746A	SMA
1SMA4747	20.0	19.0	21.0	22.0	12.5	750	0.25	5.0	15.2	747A	SMA
1SMA4748	22.0	20.9	23.1	23.0	11.5	750	0.25	5.0	16.7	748A	SMA
1SMA4749	24.0	22.8	25.2	25.0	10.5	750	0.25	5.0	18.2	749A	SMA
1SMA4750	27.0	25.7	28.4	35.0	9.5	750	0.25	5.0	20.6	750A	SMA
1SMA4751	30.0	28.5	31.5	40.0	8.5	1000	0.25	5.0	22.8	751A	SMA
1SMA4752	33.0	31.4	34.7	45.0	7.5	1000	0.25	5.0	25.1	752A	SMA
1SMA4753	36.0	34.2	37.8	50.0	7.0	1000	0.25	5.0	27.4	753A	SMA
1SMA4754	39.0	37.1	41	60.0	6.5	1000	0.25	5.0	29.7	754A	SMA
1SMA4755	43.0	40.9	45.2	70.0	6.0	1500	0.25	5.0	32.7	755A	SMA
1SMA4756	47.0	44.7	49.4	80.0	5.5	1500	0.25	5.0	35.8	756A	SMA
1SMA4757	51.0	48.5	53.6	95.0	5.0	1500	0.25	5.0	38.8	757A	SMA
1SMA4758	56.0	53.2	58.8	110	4.5	2000	0.25	5.0	42.6	758A	SMA
1SMA4759	62.0	58.9	65.1	125	4.0	2000	0.25	5.0	47.1	759A	SMA
1SMA4760	68.0	64.6	71.4	150	3.7	2000	0.25	5.0	51.7	760A	SMA
1SMA4761	75.0	71.3	78.8	175	3.3	2000	0.25	5.0	56.0	761A	SMA
1SMA4762	82.0	77.9	86.1	200	3.0	3000	0.25	5.0	62.2	762A	SMA
1SMA4763	91.0	86.5	95.6	250	2.8	3000	0.25	5.0	69.2	763A	SMA
1SMA4764	100	95.0	105	350	2.5	3000	0.25	5.0	76.0	100A	SMA
1SMA110A	110	104.5	115.5	450	2.3	4000	0.25	5.0	83.6	110A	SMA
1SMA120A	120	114	126	550	2.0	4500	0.25	5.0	91.2	120A	SMA
1SMA130A	130	123.5	136.5	700	1.9	5000	0.25	5.0	98.8	130A	SMA
1SMA150A	150	142.5	157.5	1000	1.7	6000	0.25	5.0	114.0	150A	SMA
1SMA160A	160	152	168	1100	1.6	6500	0.25	5.0	121.6	160A	SMA
1SMA180A	180	171	189	1200	1.4	7000	0.25	5.0	136.8	180A	SMA
1SMA200A	200	190	210	1500	1.2	8000	0.25	5.0	152.0	200A	SMA

RATINGS AND CHARACTERISTIC CURVES(1SMA472**8** THRU 1SMA200A)

FIG.1- POWER TEMPERATURE DERATING CURVE

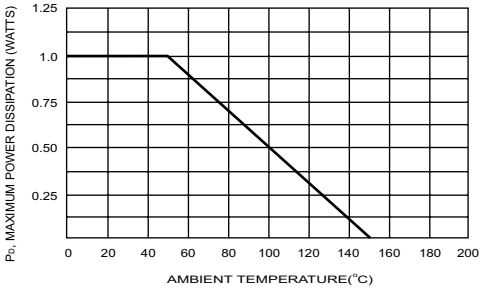


FIG.2- TYPICAL FORWARD CHARACTERISTICS

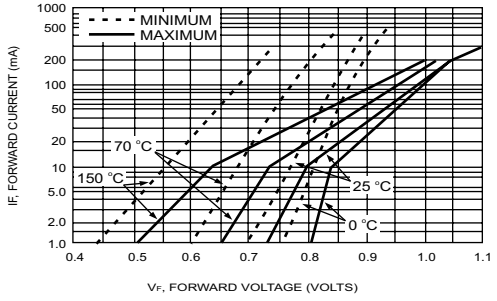


FIG.3- EFFECT OF ZENER CURRENT ON ZENER IMPEDANCE

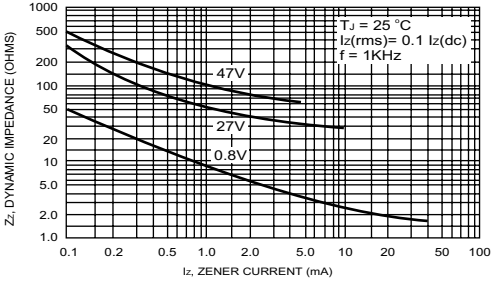


FIG.4- EFFECT OF ZENER VOLTAGE ON ZENER IMPEDANCE

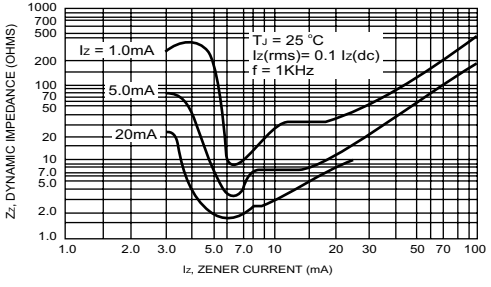


FIG.5- TYPICAL LEAKAGE CURRENT

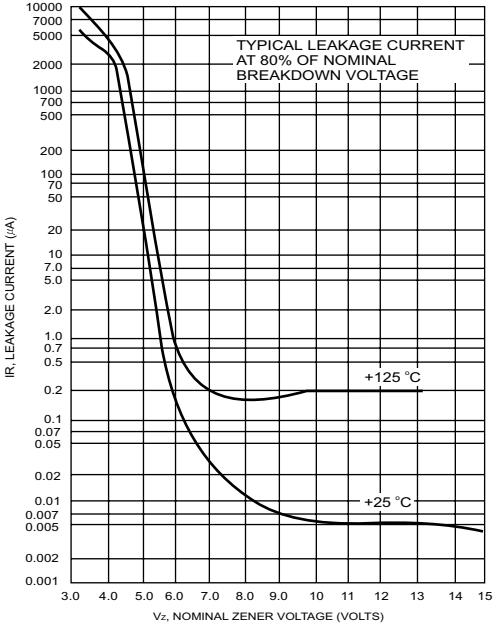


FIG.6- TYPICAL CAPACITANCE versus Vz

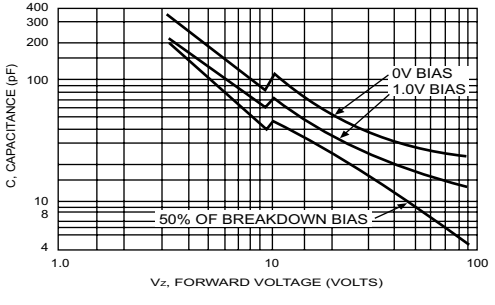
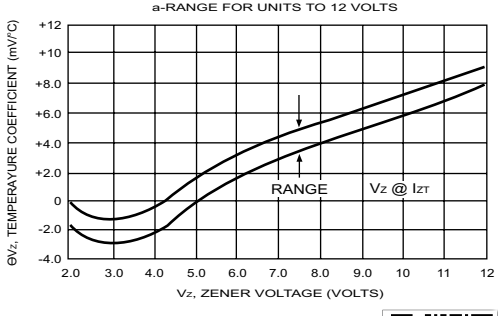


FIG.7- TEMPERATURE COEFFICIENTS



The cruve graph is for reference only, can't be the basis for judgment(曲线图仅供参考)!

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FIG.7- TEMPERATURE COEFFICIENTS

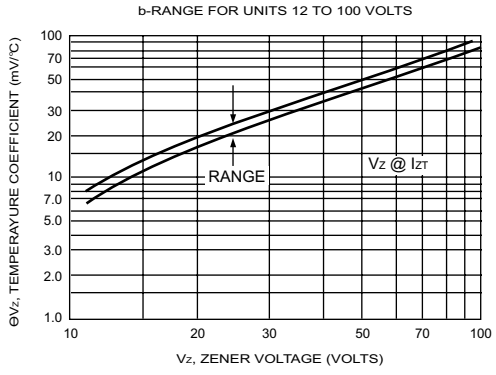


FIG.8- EFFECT OF ZENER CURRENT

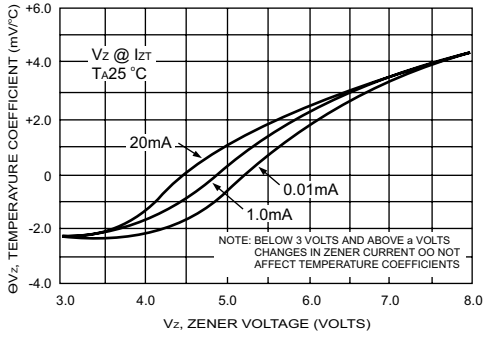
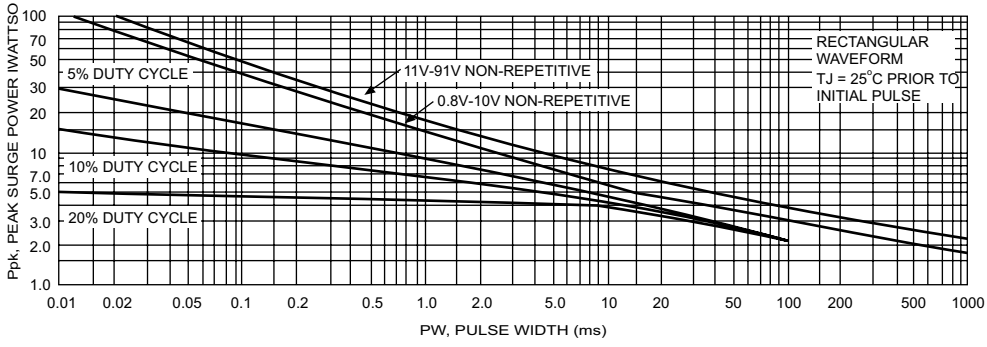


FIG.9- MAXIMUM SURGE POWER



The cruve graph is for reference only, can't be the basis for judgment(曲线图仅供参考)!

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