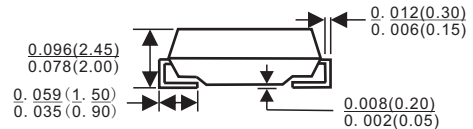
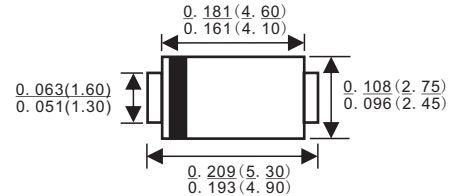




FEATURE

- ◆ 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 $5.0 \mu A$ above 11V
- ◆ High temperature soldering guaranteed:
260°C / 10 seconds at terminals
- ◆ Plastic package has Underwriters Laboratory
Flammability Classification 94V-0

SMA/DO-214AC



Dimensions in inches and(millimeters)

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°C ambient temperature unless otherwise specified.

MDD Catalog Number	SYMBOLS	VALUE	UNITS
Peak Power Dissipation at $T_A=50^\circ C$, Derate above $50^\circ C$ (Note 1)	P_D	1.0 6.67	Watts mW/ $^\circ C$
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	$^\circ C$

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.

ELECTRICAL CHARACTERISTICS (TA=25°C unless otherwise noted) VF=1.2V max, IF=200mA for all types.											
Part Number	Marking	V _Z @ I _{ZT}			Maximum Zener Impedance				Maximum Leakage Current		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	728A	3.3	3.1	3.5	10.0	76.0	400	1.00	100	1.0	SMA
1SMA4729	729A	3.6	3.4	3.8	10.0	69.0	400	1.00	100	1.0	SMA
1SMA4730	730A	3.9	3.7	4.1	9.0	64.0	400	1.00	50	1.0	SMA
1SMA4731	731A	4.3	4.1	4.5	9.0	58.0	400	1.00	10	1.0	SMA
1SMA4732	732A	4.7	4.5	4.9	8.0	53.0	500	1.00	10	1.0	SMA
1SMA4733	733A	5.1	4.8	5.4	7.0	49.0	550	1.00	10	1.0	SMA
1SMA4734	734A	5.6	5.3	5.9	5.0	45.0	600	1.00	10	2.0	SMA
1SMA4735	735A	6.2	5.9	6.5	2.0	41.0	700	1.00	10	3.0	SMA
1SMA4736	736A	6.8	6.5	7.1	3.5	37.0	700	1.00	10	4.0	SMA
1SMA4737	737A	7.5	7.1	7.9	4.0	34.0	700	0.50	10	5.0	SMA
1SMA4738	738A	8.2	7.8	8.6	4.5	31.0	700	0.50	10	6.0	SMA
1SAM4739	739A	9.1	8.6	9.6	5.0	28.0	700	0.50	10	7.0	SMA
1SMA4740	740A	10.0	9.5	10.5	7.0	25.0	700	0.25	10	7.6	SMA
1SMA4741	741A	11.0	10.5	11.6	8.0	23.0	700	0.25	5.0	8.4	SMA
1SMA4742	742A	12.0	11.4	12.6	9.0	21.0	700	0.25	5.0	9.1	SMA
1SMA4743	743A	13.0	12.4	13.7	10.0	19.0	700	0.25	5.0	9.9	SMA
1SMA4744	744A	15.0	14.3	15.8	14.0	17.0	700	0.25	5.0	11.4	SMA
1SMA4745	745A	16.0	15.2	16.8	16.0	15.5	700	0.25	5.0	12.2	SMA
1SMA4746	746A	18.0	17.1	18.9	20.0	14.0	750	0.25	5.0	13.7	SMA
1SMA4747	747A	20.0	19.0	21.0	22.0	12.5	750	0.25	5.0	15.2	SMA
1SMA4748	748A	22.0	20.9	23.1	23.0	11.5	750	0.25	5.0	16.7	SMA
1SMA4749	749A	24.0	22.8	25.2	25.0	10.5	750	0.25	5.0	18.2	SMA
1SMA4750	750A	27.0	25.7	28.4	35.0	9.5	750	0.25	5.0	20.6	SMA
1SMA4751	751A	30.0	28.5	31.5	40.0	8.5	1000	0.25	5.0	22.8	SMA
1SMA4752	752A	33.0	31.4	34.7	45.0	7.5	1000	0.25	5.0	25.1	SMA
1SMA4753	753A	36.0	34.2	37.8	50.0	7.0	1000	0.25	5.0	27.4	SMA
1SMA4754	754A	39.0	37.1	41	60.0	6.5	1000	0.25	5.0	29.7	SMA
1SMA4755	755A	43.0	40.9	45.2	70.0	6.0	1500	0.25	5.0	32.7	SMA
1SMA4756	756A	47.0	44.7	49.4	80.0	5.5	1500	0.25	5.0	35.8	SMA
1SMA4757	757A	51.0	48.5	53.6	95.0	5.0	1500	0.25	5.0	38.8	SMA
1SMA4758	758A	56.0	53.2	58.8	110	4.5	2000	0.25	5.0	42.6	SMA
1SMA4759	759A	62.0	58.9	65.1	125	4.0	2000	0.25	5.0	47.1	SMA
1SMA4760	760A	68.0	64.6	71.4	150	3.7	2000	0.25	5.0	51.7	SMA
1SMA4761	761A	75.0	71.3	78.8	175	3.3	2000	0.25	5.0	56.0	SMA
1SMA4762	762A	82.0	77.9	86.1	200	3.0	3000	0.25	5.0	62.2	SMA
1SMA4763	763A	91.0	86.5	95.6	250	2.8	3000	0.25	5.0	69.2	SMA
1SMA4764	764A	100	95.0	105	350	2.5	3000	0.25	5.0	76.0	SMA
1SMA110A	110A	110	104.5	115.5	450	2.3	4000	0.25	5.0	83.6	SMA
1SMA120A	120A	120	114	126	550	2.0	4500	0.25	5.0	91.2	SMA
1SMA130A	130A	130	123.5	136.5	700	1.9	5000	0.25	5.0	98.8	SMA
1SMA150A	150A	150	142.5	157.5	1000	1.7	6000	0.25	5.0	114.0	SMA
1SMA160A	160A	160	152	168	1100	1.6	6500	0.25	5.0	121.6	SMA
1SMA180A	180A	180	171	189	1200	1.4	7000	0.25	5.0	136.8	SMA
1SMA200A	200A	200	190	210	1500	1.2	8000	0.25	5.0	152.0	SMA

Notes :

- (1) Suffix " A " indicates ± 5.0% tolerance.
- (2) 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 CHARACTERISTIC CURVES(1SMA4728 THRU 1SMA200A)

FIG.1- POWER TEMPERATURE DERATING CURVE

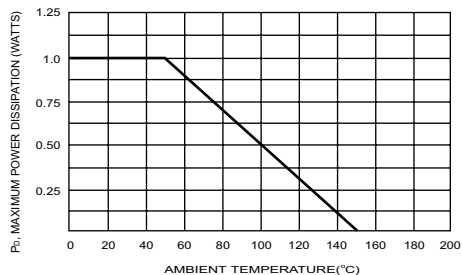


FIG.2- TYPICAL FORWARD CHARACTERISTICS

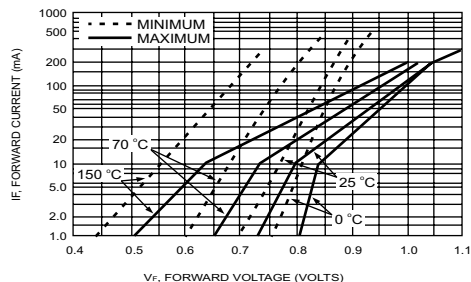


FIG.3- EFFECT OF ZENER CURRENT ON ZENER IMPEDANCE

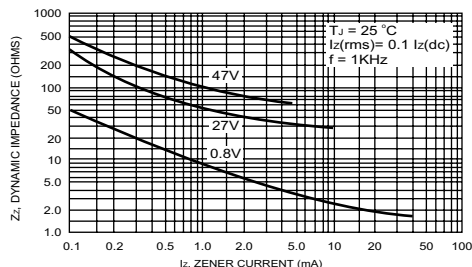


FIG.4- EFFECT OF ZENER VOLTAGE ON ZENER IMPEDANCE

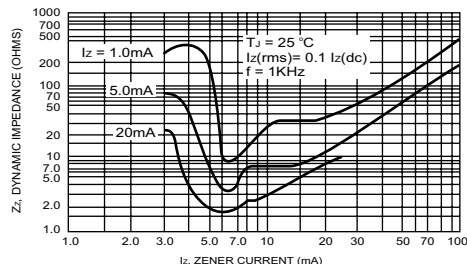


FIG.5- TYPICAL LEAKAGE CURRENT

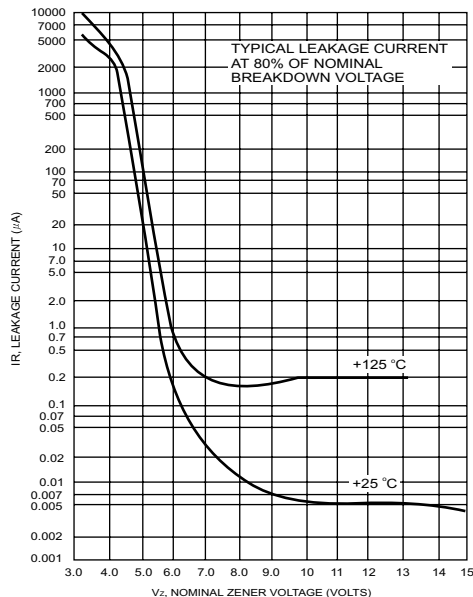


FIG.6- TYPICAL CAPACITANCE versus V_Z

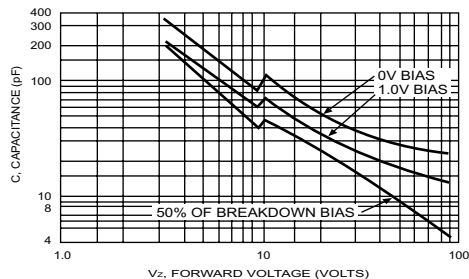
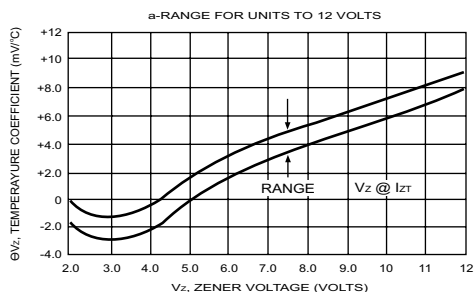


FIG.7- TEMPERATURE COEFFICIENTS



RATINGS AND CHARACTERISTIC CURVES(1SMA4728 THRU 1SMA200A)

FIG.7- TEMPERATURE COEFFICIENTS

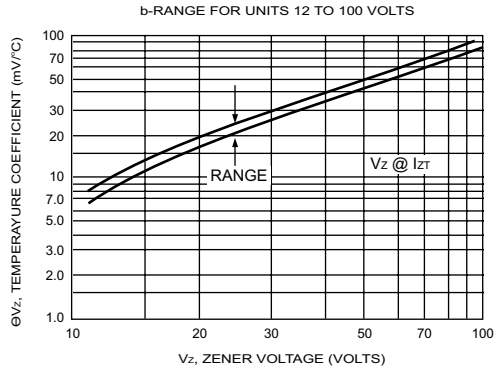


FIG.8- EFFECT OF ZENER CURRENT

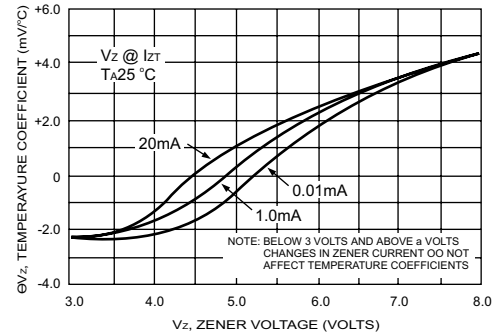
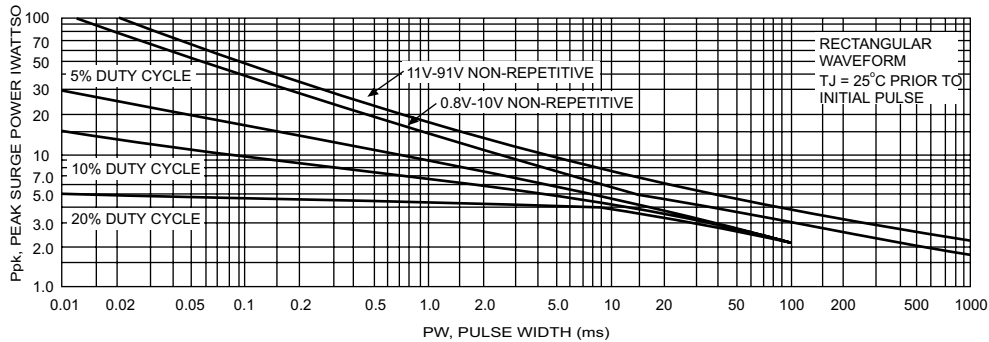


FIG.9- MAXIMUM SURGE POWER



PACKAGE	SPQ/PCS	CARTON SPQ/PCS	CARTON SIZE/CM	CARTON GW/KG	CARTON NW/KG
SMA	5000/REEL	80000	36X30.6X31	12.00	11.00