

### ■ Features

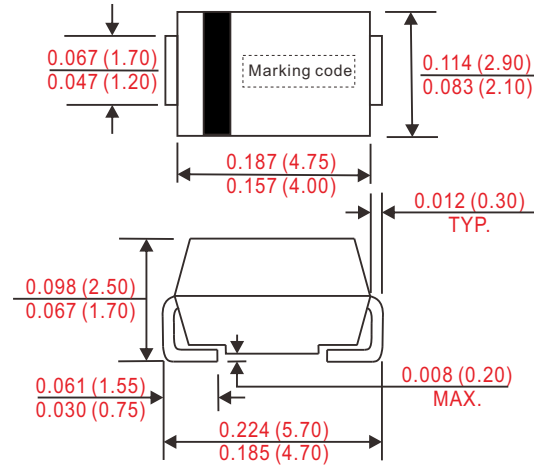
- Glass passivated chip.
- High peak reverse power dissipation.
- Built-in strain relief.
- Suffix "G" indicates Halogen-free part, ex. SMA4735AG.
- Lead(Pb)-free component.
- For use in stabilizing and clipping circuits with high power rating.

### ■ Mechanical data

- Epoxy: UL94-V0 rated flame retardant
- Case : Molded plastic, DO-214AC / SMA
- Terminals : Solder plated, solderable per MIL-STD-750, Method 2026
- Polarity : Indicated by cathode band
- Weight : 0.002 ounce, 0.055 gram

### ■ Outline

SMA(DO-214AC)



Dimensions in inches and (millimeters)

### ■ Maximum ratings and electrical characteristics

Rating at 25°C ambient temperature unless otherwise specified. Single phase, half wave, 60Hz, resistive or inductive load. For capacitive load, derate current by 20%.

Parameter	Conditions	Symbol	MIN.	TYP.	MAX.	UNIT
DC power dissipation	$T_L = 50^\circ\text{C}$ (1)	$P_D$			1.0	W
Forward voltage	$I_F = 200\text{mA}$	$V_F$			1.2	V
Maximum thermal resistance	Junction to ambient(2)	$R_{\theta JA}$		170		K/W
Storage temperature		$T_{STG}$	-55		+150	°C
Operating Junction temperature		$T_J$	-55		+150	°C

Note : 1.  $T_L$  = Lead temperature at 3/8"(9.5mm) from body.  
 2. Valid provided that leads are kept at ambient temperature at a distance of 10mm from case.

■ Electrical characteristics

Part No.	Marking code	Zener voltage	Test current	Zener impedance			Leakage current	
		$V_Z @ I_{ZT}$	$I_{ZT}$	$Z_{ZT} @ I_{ZT}$	$Z_{ZK} @ I_{ZK}$	$I_{ZK}$	$I_R$	$V_R$
		Volts	mA	OHMs	OHMs	mA	uA	Volts
SMA4735A	35A	6.2	41.0	2.0	700	1.0	10	3.0
SMA4736A	36A	6.8	37.0	3.5	700	1.0	10	4.0
SMA4737A	37A	7.5	34.0	4.0	700	0.5	10	5.0
SMA4738A	38A	8.2	31.0	4.5	700	0.5	10	6.0
SMA4739A	39A	9.1	28.0	5.0	700	0.5	10	7.0
SMA4740A	40A	10	25.0	7.0	700	0.25	10	7.6
SMA4741A	41A	11	23.0	8.0	700	0.25	5	8.4
SMA4742A	42A	12	21.0	9.0	700	0.25	5	9.1
SMA4743A	43A	13	19.0	10	700	0.25	5	9.9
SMA4744A	44A	15	17.0	14	700	0.25	5	11.4
SMA4745A	45A	16	15.5	16	700	0.25	5	12.2
SMA4746A	46A	18	14.0	20	750	0.25	5	13.7
SMA4747A	47A	20	12.5	22	750	0.25	5	15.2
SMA4748A	48A	22	11.5	23	750	0.25	5	16.7
SMA4749A	49A	24	10.5	25	750	0.25	5	18.2
SMA4750A	50A	27	9.5	35	750	0.25	5	20.6
SMA4751A	51A	30	8.5	40	1000	0.25	5	22.8
SMA4752A	52A	33	7.5	45	1000	0.25	5	25.1
SMA4753A	53A	36	7.0	50	1000	0.25	5	27.4
SMA4754A	54A	39	6.5	60	1000	0.25	5	29.7
SMA4755A	55A	43	6.0	70	1500	0.25	5	32.7
SMA4756A	56A	47	5.5	80	1500	0.25	5	35.8
SMA4757A	57A	51	5.0	95	1500	0.25	5	38.8
SMA4758A	58A	56	4.5	110	2000	0.25	5	42.6
SMA4759A	59A	62	4.0	125	2000	0.25	5	47.1
SMA4760A	60A	68	3.7	150	2000	0.25	5	51.7
SMA4761A	61A	75	3.3	175	2000	0.25	5	56.0
SMA4762A	62A	82	3.0	200	3000	0.25	5	62.2
SMA4763A	63A	91	2.8	250	3000	0.25	5	69.2
SMA4764A	64A	100	2.5	350	3000	0.25	5	76.0
SZ1110A	11Z	110	2.3	450	4000	0.25	5	83.6
SZ1120A	12Z	120	2.0	550	4500	0.25	5	91.2
SZ1130A	13Z	130	1.9	700	5000	0.25	5	98.8
SZ1150A	15Z	150	1.7	1000	6000	0.25	5	114.0
SZ1160A	16Z	160	1.6	1100	6500	0.25	5	121.6
SZ1180A	18Z	180	1.4	1200	7000	0.25	5	136.8
SZ1200A	20Z	200	1.2	1900	9990	0.25	5	152.0

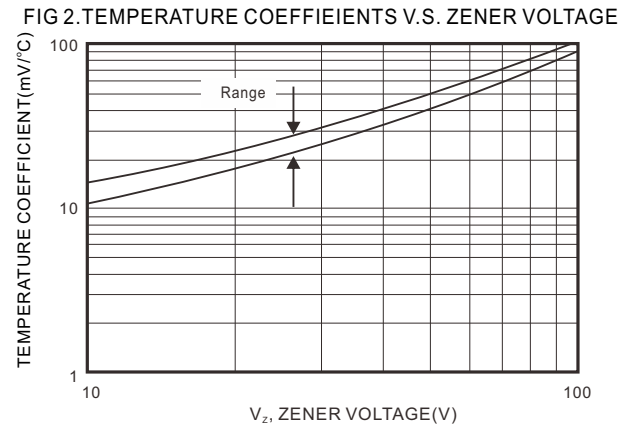
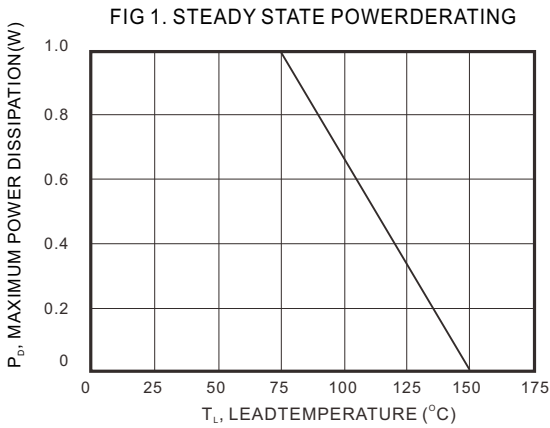
Note : 5% tolerance of Zener voltage

■ Electrical characteristics

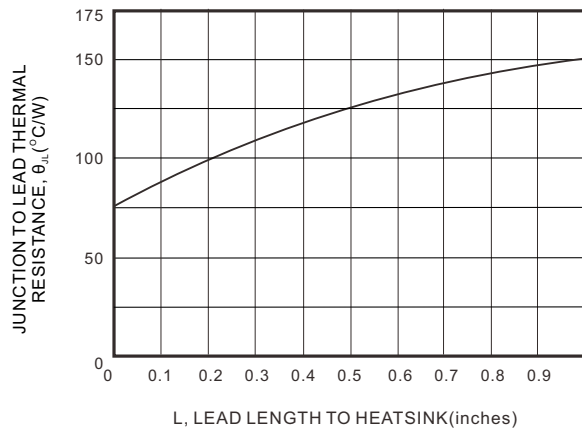
Part No.	Marking code	Zener voltage	Test current	Zener impedance			Leakage current	
		$V_Z @ I_{ZT}$	$I_{ZT}$	$Z_{ZT} @ I_{ZT}$	$Z_{ZK} @ I_{ZK}$	$I_{ZK}$	$I_R$	$V_R$
		Volts	mA	OHMs	OHMs	mA	uA	Volts
SZ1220A	22Z	220	1.0	1600	8000	0.25	5	167.2
SZ1240A	24Z	240	0.9	1800	8500	0.25	5	182.4
SZ1250A	25Z	250	0.9	2000	9000	0.25	5	190.0
SZ1270A	27Z	270	0.8	2100	9000	0.25	5	205.0
SZ1300A	30Z	300	0.8	2300	9500	0.25	5	228.0

Note : 5% tolerance of Zener voltage

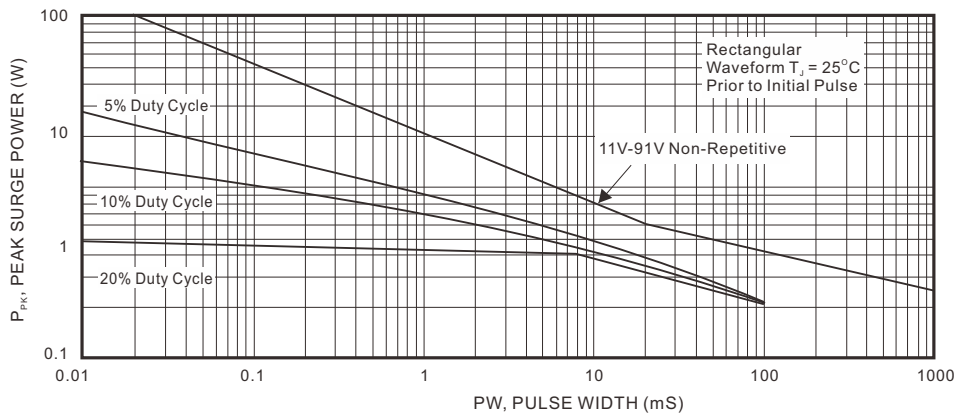
Rating and characteristic curves



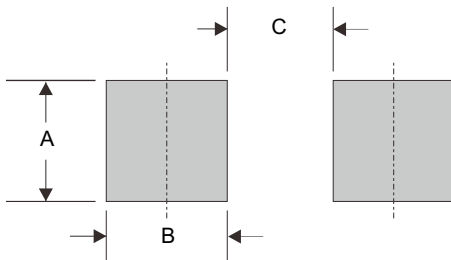
**FIG 3. TYPICAL THERMAL RESISTANCE V.S. LEAD LENGTH**



**FIG 4. MAXIMUM SURGE POWER**



■ SMA foot print



A	B	C
0.068 (1.70)	0.104 (2.60)	0.060 (1.50)

Dimensions in inches and (millimeters)

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