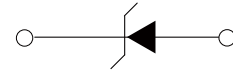


FEATURES

- | Glass passivated chip
- | Built-in strain relief
- | Low inductance
- | High peak reverse power dissipation
- | Low reverse leakage
- | For use in stabilizing and clipping with high power rating



DO-214AC(SMA)



Schematic Symbol

MECHANICAL DATA

- | Case : Molded plastic body
- | Polarity : Polarity symbol marking on body
- | Mounting Position : Any

APPROVALS

RoHS	Compliance with 2011/65/EU
HF	Compliance with IEC61249-2-21:2003

MAXIMUM RATINGS ($T_A=25^{\circ}\text{C}$)

Parameter	Symbo	Value	Unit
DC Power dissipation at $T_L = 75^{\circ}\text{C}^{(1)}$	P_D	1.0	W
Maximum forward voltage at $I_F=200\text{mA}$	V_F	1.2	V
Junction temperature range	T_J, T_{STG}	-55 to +150	$^{\circ}\text{C}$
Storage temperature range	T_J, T_{STG}	-55 to +150	$^{\circ}\text{C}$

Note:

 (1) T_L =Lead temperature at 3/8" (9.5mm)from body

ELECTRICAL CHARACTERISTICS

Part Number	Device Marking Code	Nominal Zener Voltage @I _T			I _{ZT} (mA)	Maximum Zener Impedance			Maximum Reverse Leakage Current		Maximum DC Zener Current
		V _{Z AVE.} (V)	V _{Z MIN.} (V)	V _{Z MAX.} (V)		Z _{ZT MAX.} (Ω) @I _{ZT}	Z _{ZK MAX.} (Ω) @I _{ZK}	I _{ZK} (mA)	I _R (μA)@V _R	V _R (V)	
SMA4728A	728A	3.3	3.14	3.47	76.0	10.0	400.0	1.00	100.0	1.0	276.0
SMA4729A	729A	3.6	3.42	3.78	69.0	10.0	400.0	1.00	100.0	1.0	252.0
SMA4730A	730A	3.9	3.71	4.10	64.0	9.0	400.0	1.00	50.0	1.0	234.0
SMA4731A	731A	4.3	4.09	4.52	58.0	9.0	400.0	1.00	10.0	1.0	217.0
SMA4732A	732A	4.7	4.47	4.94	53.0	8.0	500.0	1.00	10.0	1.0	193.0
SMA4733A	733A	5.1	4.85	5.36	49.0	7.0	550.0	1.00	10.0	1.0	178.0
SMA4734A	734A	5.6	5.32	5.88	45.0	5.0	600.0	1.00	10.0	2.0	162.0
SMA4735A	735A	6.2	5.89	6.51	41.0	2.0	700.0	1.00	10.0	3.0	146.0
SMA4736A	736A	6.8	6.46	7.14	37.0	3.5	700.0	1.00	10.0	4.0	133.0
SMA4737A	737A	7.5	7.13	7.88	34.0	4.0	700.0	0.50	10.0	5.0	121.0
SMA4738A	738A	8.2	7.79	8.61	31.0	4.5	700.0	0.50	10.0	6.0	110.0
SMA4739A	739A	9.1	8.65	9.56	28.0	5.0	700.0	0.50	10.0	7.0	100.0
SMA4740A	740A	10.0	9.50	10.50	25.0	7.0	700.0	0.25	10.0	7.6	91.0
SMA4741A	741A	11.0	10.45	11.55	23.0	8.0	700.0	0.25	0.5	8.4	83.0
SMA4742A	742A	12.0	11.40	12.60	21.0	9.0	700.0	0.25	0.5	9.1	76.0
SMA4743A	743A	13.0	12.35	13.65	19.0	10.0	700.0	0.25	0.5	9.9	69.0
SMA4744A	744A	15.0	14.25	15.75	17.0	14.0	700.0	0.25	0.5	11.4	61.0
SMA4745A	745A	16.0	15.20	16.80	15.5	16.0	700.0	0.25	0.5	12.2	57.0
SMA4746A	746A	18.0	17.10	18.90	14.0	20.0	750.0	0.25	0.5	13.7	50.0
SMA4747A	747A	20.0	19.00	21.00	12.5	22.0	750.0	0.25	0.5	15.2	45.0
SMA4748A	748A	22.0	20.90	23.10	11.5	23.0	750.0	0.25	0.5	16.7	41.0
SMA4749A	749A	24.0	22.80	25.20	10.5	25.0	750.0	0.25	0.5	18.2	38.0
SMA4750A	750A	27.0	25.65	28.35	9.5	35.0	750.0	0.25	0.5	20.6	34.0
SMA4751A	751A	30.0	28.50	31.50	8.5	40.0	1000.0	0.25	0.5	22.8	30.0
SMA4752A	752A	33.0	31.35	34.65	7.5	45.0	1000.0	0.25	0.5	25.1	27.0
SMA4753A	753A	36.0	34.20	37.80	7.0	50.0	1000.0	0.25	0.5	27.4	25.0
SMA4754A	754A	39.0	37.05	40.95	6.5	60.0	1000.0	0.25	0.5	29.7	23.0
SMA4755A	755A	43.0	40.85	45.15	6.0	70.0	1500.0	0.25	0.5	32.7	22.0
SMA4756A	756A	47.0	44.65	49.35	5.5	80.0	1500.0	0.25	0.5	35.8	19.0
SMA4757A	757A	51.0	48.45	53.55	5.0	95.0	1500.0	0.25	0.5	38.8	18.0

Part Number	Device Marking Code	Nominal Zener Voltage @I _T			I _{ZT} (mA)	Maximum Zener Impedance			Maximum Reverse Leakage Current		Maximum DC Zener Current
		V _{Z.AVE.} (V)	V _{Z.MIN.} (V)	V _{Z.MAX.} (V)		Z _{ZT.MAX.} (Ω) @I _{ZT}	Z _{ZK.MAX.} (Ω) @I _{ZK}	I _{ZK} (mA)	I _R (uA)@V _R	V _R (V)	
SMA4758A	758A	56.0	53.20	58.80	4.5	110.0	2000.0	0.25	0.5	42.6	16.0
SMA4759A	759A	62.0	58.90	65.10	4.0	125.0	2000.0	0.25	0.5	47.1	14.0
SMA4760A	760A	68.0	64.60	71.40	3.7	150.0	2000.0	0.25	0.5	51.7	13.0
SMA4761A	761A	75.0	71.25	78.75	3.3	175.0	2000.0	0.25	0.5	56.0	12.0
SMA4762A	762A	82.0	77.90	86.10	3.0	200.0	3000.0	0.25	0.5	62.2	11.0
SMA4763A	763A	91.0	86.45	95.55	2.8	250.0	3000.0	0.25	0.5	69.2	10.0
SMA4764A	764A	100.0	95.00	105.00	2.5	350.0	3000.0	0.25	0.5	76.0	9.0
SZ1110A	711Z	110.0	104.50	115.50	2.3	450.0	4000.0	0.25	0.5	83.6	8.6
SZ1120A	712Z	120.0	114.00	126.00	2.0	550.0	4500.0	0.25	0.5	91.2	7.8
SZ1130A	713Z	130.0	123.50	136.50	1.9	700.0	5000.0	0.25	0.5	98.8	7.0
SZ1150A	715Z	150.0	142.50	157.50	1.7	1000.0	6000.0	0.25	0.5	114.0	6.4
SZ1160A	716Z	160.0	152.00	168.00	1.6	1100.0	6500.0	0.25	0.5	121.6	5.8
SZ1180A	718Z	180.0	171.00	189.00	1.4	1200.0	7000.0	0.25	0.5	136.8	5.2
SZ1200A	720Z	200.0	190.00	210.00	1.2	1900.0	9990.0	0.25	0.5	152.0	4.7
SZ1220A	722Z	220.0	209.00	231.00	1.0	1600.0	8000.0	0.25	0.5	167.2	4.0
SZ1240A	724Z	240.0	228.00	252.00	0.9	1800.0	8500.0	0.25	0.5	182.4	3.8
SZ1250A	725Z	250.0	237.50	262.50	0.9	2000.0	9000.0	0.25	0.5	190.0	3.6
SZ1270A	727Z	270.0	256.50	283.50	0.8	2100.0	9000.0	0.25	0.5	205.0	3.3
SZ1300A	730Z	300.0	285.00	315.00	0.8	2300.0	9500.0	0.25	0.5	228.0	3.0
SZ1330A	733Z	330.0	313.50	346.50	0.7	2500.0	9500.0	0.25	0.5	250.2	2.7
SZ1360A	736Z	360.0	342.00	378.00	0.7	2700.0	10000.0	0.25	0.5	275.0	2.5
SZ1390A	739Z	390.0	370.50	409.50	0.7	3000.0	10000.0	0.25	0.5	300.0	2.2

CHARACTERISTIC CURVES

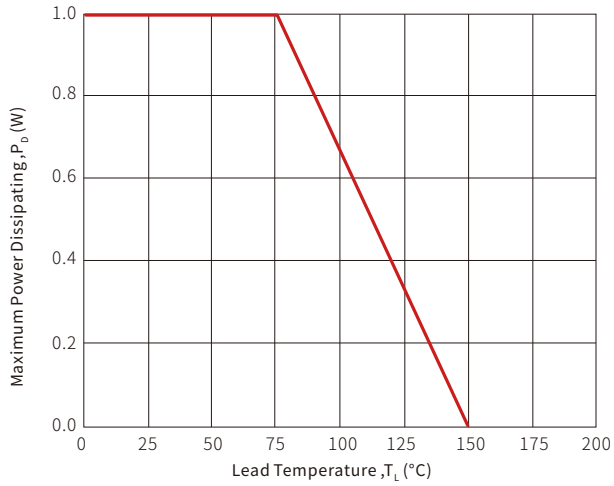
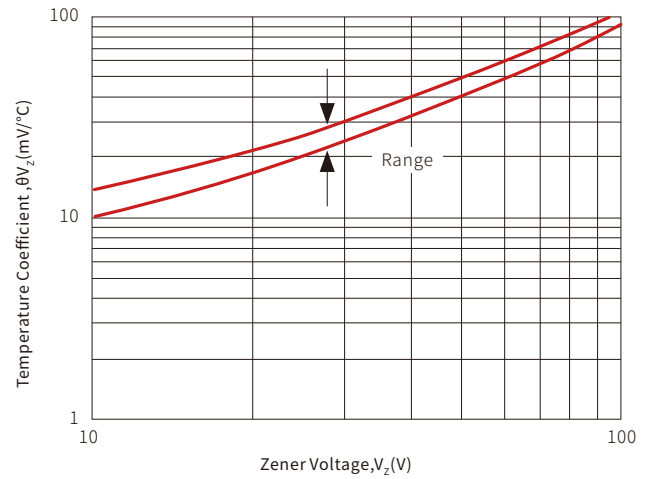
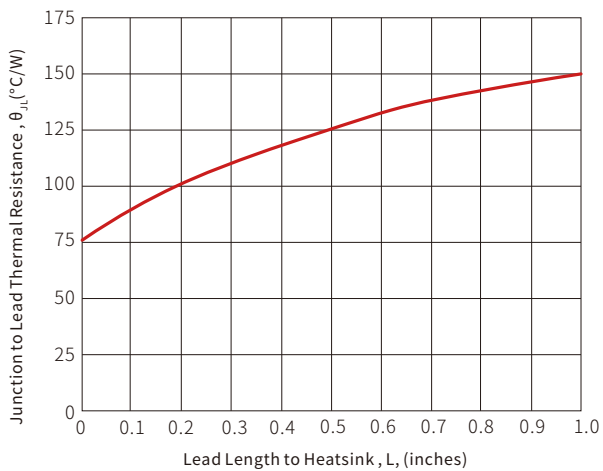
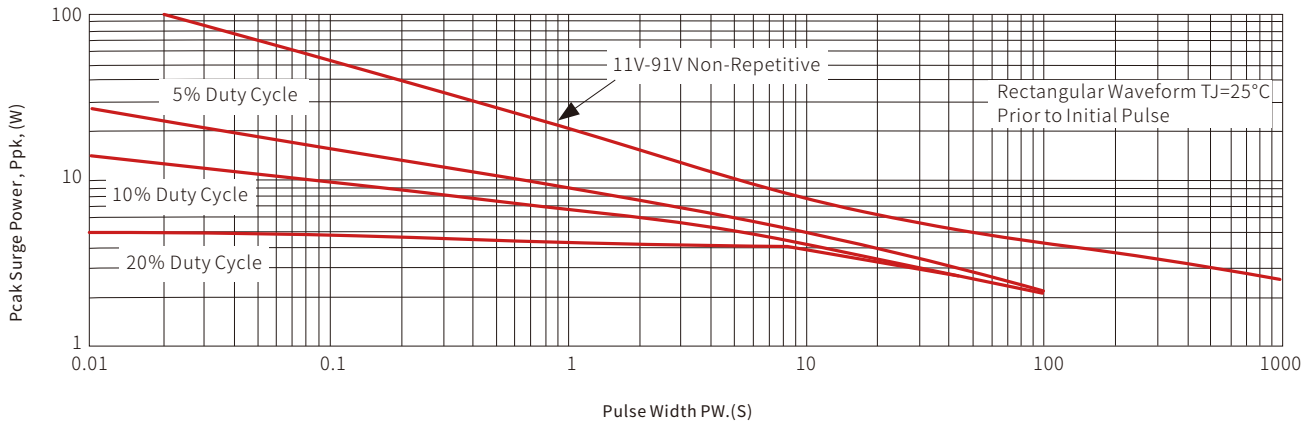
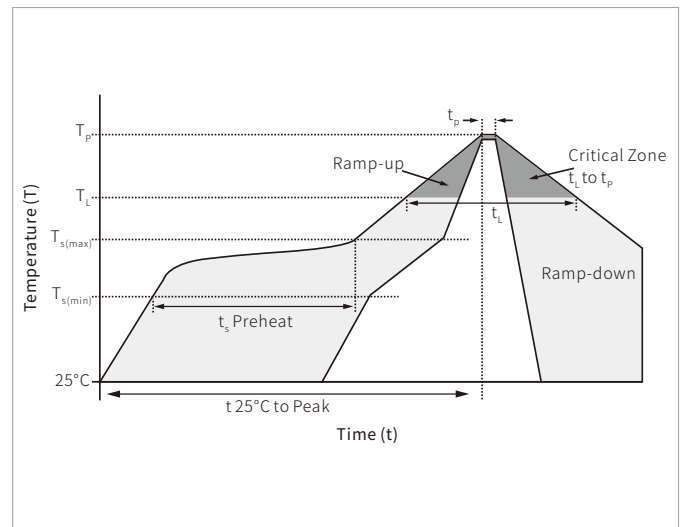
Fig.1-Power Temperature Derating Curve

Fig.2-Temperature Coefficients v.s. Zener Voltage

Fig.3-Typical Thermal Resistance v.s. Lead Length


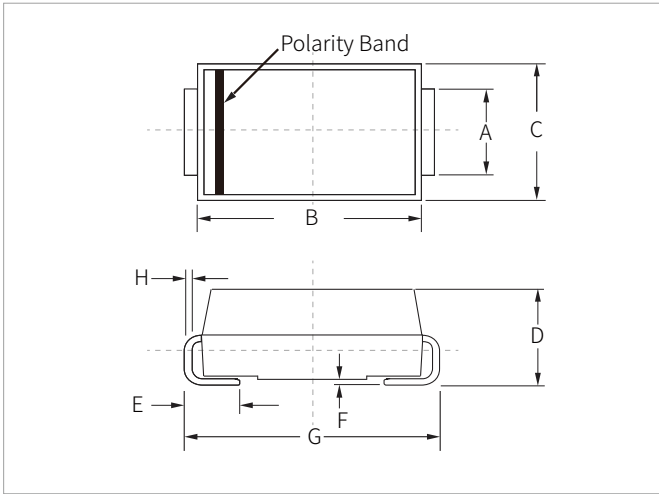
Fig.4-Maximum Surge Power


SOLDERING PARAMETERS

Reflow Condition		Lead-free assembly
Pre Heat	Temperature Max ($T_{s(\min)}$)	150°C
	Temperature Max ($T_{s(\max)}$)	200°C
	Time (min to max) (t_s)	60 – 180 secs
Average ramp up rate (Liquidus Temp (T_L) to peak)		3°C/second max
$T_{s(\max)}$ to T_L - Ramp-up Rate		3°C/second max
Reflow	Temperature (T_L) (Liquidus)	217°C
	Time (min to max) (t_L)	60 – 150 seconds
Peak Temperature (T_p)		260°C
Time within 5°C of peak Temperature (t_p)		20 – 40 seconds
Ramp-down Rate		6°C/second max
Time 25°C to peak Temperature (T_p)		8 minutes max.
Do not exceed		260°C

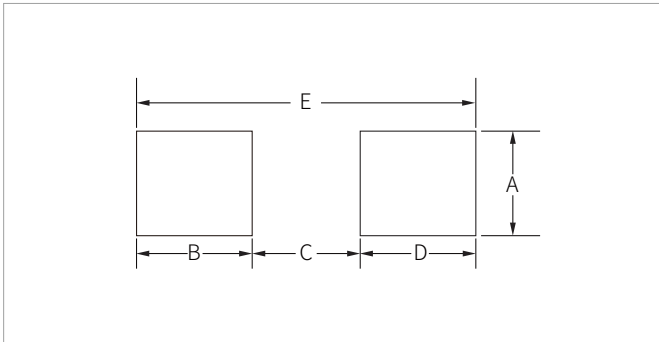


DO-214AC(SMA) PACKAGE INFORMATION



Ref.	Millimeters		Inches	
	Min.	Max.	Min.	Max.
A	1.20	1.60	0.047	0.063
B	4.20	4.60	0.165	0.181
C	2.40	2.80	0.094	0.110
D	2.00	2.40	0.079	0.094
E	0.76	1.52	0.030	0.060
F	0.02	0.20	0.001	0.008
G	4.85	5.25	0.191	0.207
H	0.15	0.30	0.006	0.012

RECOMMENDED PAD LAYOUT DIMENSIONS



Ref.	Millimeters		Inches	
	Min.	Max.	Min.	Max.
A	1.63	-	0.064	-
B	1.45	-	0.057	-
C	-	2.80	-	0.090
D	1.45	-	0.057	-
E	5.28REF		0.208REF	

ORDERING INFORMATION

Part Number	Component Package	QTY/Reel	Reel Size
SMA47-A	DO-214AC(SMA)	5000PCS	13"

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