

SMA47xx Series

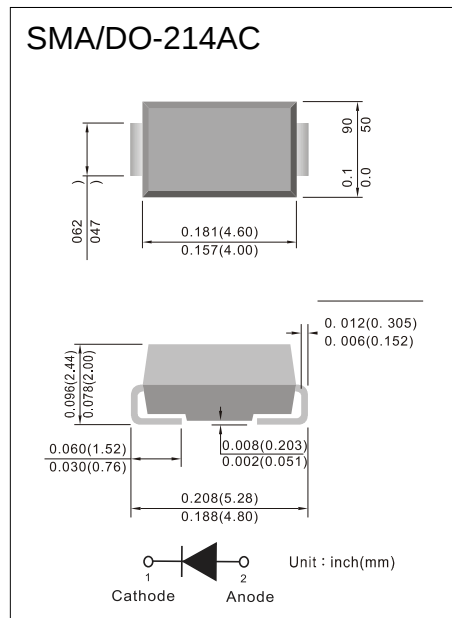
Surface Mount Silicon Zener Diodes
Zener Voltage 3.3 ~ 100 V
1.0 Watt Power Dissipation

■ 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
- Comply with RoHS standard, halogen-free

■ Mechanical Data

- package:SMA/DO-214AC
- Terminal: All external surfaces are corrosion resistant with readily solderable leads
- Polarity: Cathode line denotes the cathode end
- Epoxy: UL 94V-0 rate flame retardant
- Mounting Position : Any



■ Absolute Maximum Ratings($T_A=25^{\circ}\text{C}$ unless otherwise noted)

PARAMETER	SYMBOL	VALUE	UNIT
Forward voltage @ $I_F=200\text{mA}$	V_F	1.2	V
Total power dissipation at $T_A=50^{\circ}\text{C}$, derate above $50^{\circ}\text{C}^{(1)}$	P_{tot}	1.25	W
Total power dissipation at $T_A=75^{\circ}\text{C}$	P_{tot}	1	W
Junction temperature	T_J	-55 to +150	$^{\circ}\text{C}$
Storage temperature	T_{STG}	-55 to +150	$^{\circ}\text{C}$

Note: 1. Mounted on 5mm x 5mm Cu pad test board

■ Thermal Performance($T_A=25^{\circ}\text{C}$ unless otherwise noted)

PARAMETER	SYMBOL	LIMIT	UNIT
Junction-to-lead thermal resistance per diode	$R_{\theta\text{JL}}$	29	$^{\circ}\text{C/W}$
Junction-to-ambient thermal resistance per diode	$R_{\theta\text{JA}}$	120	$^{\circ}\text{C/W}$
Junction-to-case thermal resistance per diode	$R_{\theta\text{JC}}$	31	$^{\circ}\text{C/W}$

Note: Units mounted on recommended PCB (5mm x 5mm Cu pad test board)



■ Electrical Specifications ($T_A=25^\circ\text{C}$ unless otherwise noted)

Part Number	VZ@IZT			Maximum Zener Impedance				Maximum Leakage Current		Marking Code
				ZZT@IZT		ZZK@IZK		IR@VR		
	Nom.V	Min.V	Max.V	O	mA	O	mA	uA	V	
SMA4728A	3.3	3.1	3.5	10.0	76.0	400	1.00	100	1.0	728A
SMA4729A	3.6	3.4	3.8	10.0	69.0	400	1.00	100	1.0	729A
SMA4730A	3.9	3.7	4.1	9.0	64.0	400	1.00	50	1.0	730A
SMA4731A	4.3	4.1	4.5	9.0	58.0	400	1.00	10	1.0	731A
SMA4732A	4.7	4.5	4.9	8.0	53.0	500	1.00	10	1.0	732A
SMA4733A	5.1	4.8	5.4	7.0	49.0	550	1.00	10	1.0	733A
SMA4734A	5.6	5.3	5.9	5.0	45.0	600	1.00	10	2.0	734A
SMA4735A	6.2	5.9	6.5	2.0	41.0	700	1.00	10	3.0	735A
SMA4736A	6.8	6.5	7.1	3.5	37.0	700	1.00	10	4.0	736A
SMA4737A	7.5	7.1	7.9	4.0	34.0	700	0.50	10	5.0	737A
SMA4738A	8.2	7.8	8.6	4.5	31.0	700	0.50	10	6.0	738A
SMA4739A	9.1	8.6	9.6	5.0	28.0	700	0.50	10	7.0	739A
SMA4740A	10	9.5	10.5	7.0	25.0	700	0.25	10	7.6	740A
SMA4741A	11	10.5	11.6	8.0	23.0	700	0.25	0.1	8.4	741A
SMA4742A	12	11.4	12.6	9.0	21.0	700	0.25	0.1	9.1	742A
SMA4743A	13	12.4	13.7	10.0	19.0	700	0.25	0.1	9.9	743A
SMA4744A	15	14.3	15.8	14.0	17.0	700	0.25	0.1	11.4	744A
SMA4745A	16	15.2	16.8	16.0	15.5	700	0.25	0.1	12.2	745A
SMA4746A	18	17.1	18.9	20.0	14.0	750	0.25	0.1	13.7	746A
SMA4747A	20	19.0	21.0	22.0	12.5	750	0.25	0.1	15.2	747A
SMA4748A	22	20.9	23.1	23.0	11.5	750	0.25	0.1	16.7	748A
SMA4749A	24	22.8	25.2	25.0	10.5	750	0.25	0.1	18.2	749A
SMA4750A	27	25.7	28.4	35.0	9.5	750	0.25	0.1	20.6	750A
SMA4751A	30	28.5	31.5	40.0	8.5	1000	0.25	0.1	22.8	751A
SMA4752A	33	31.4	34.7	45.0	7.5	1000	0.25	0.1	25.1	752A
SMA4753A	36	34.2	37.8	50.0	7.0	1000	0.25	0.1	27.4	753A
SMA4754A	39	37.1	41	60.0	6.5	1000	0.25	0.1	29.7	754A
SMA4755A	43	40.9	45.2	70.0	6.0	1500	0.25	0.1	32.7	755A
SMA4756A	47	44.7	49.4	80.0	5.5	1500	0.25	0.1	35.8	756A
SMA4757A	51	48.5	53.6	95.0	5.0	1500	0.25	0.1	38.8	757A
SMA4758A	56	53.2	58.8	110	4.5	2000	0.25	0.1	42.6	758A
SMA4759A	62	58.9	65.1	125	4.0	2000	0.25	0.1	47.1	759A
SMA4760A	68	64.6	71.4	150	3.7	2000	0.25	0.1	51.7	760A
SMA4761A	75	71.3	78.8	175	3.3	2000	0.25	0.1	56.0	761A
SMA4762A	82	77.9	86.1	200	3.0	3000	0.25	0.1	62.2	762A
SMA4763A	91	86.5	95.6	250	2.8	3000	0.25	0.1	69.2	763A
SMA4764A	100	95.0	105	350	2.5	3000	0.25	0.1	76.0	764A

Notes: Suffix " A " indicates $\pm 10\%$ tolerance, suffix " B " indicates $\pm 5.0\%$ tolerance.

When the model suffix is "A", the product screen printing suffix is "A",

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■ Characteristics Curves($T_A=25^{\circ}\text{C}$ unless otherwise noted)

Fig.1 Steady State Power Derating

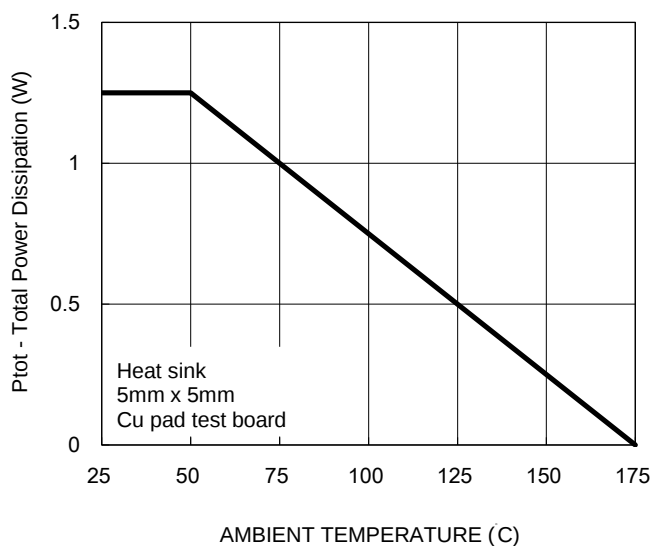


Fig.2 Typical Junction Capacitance

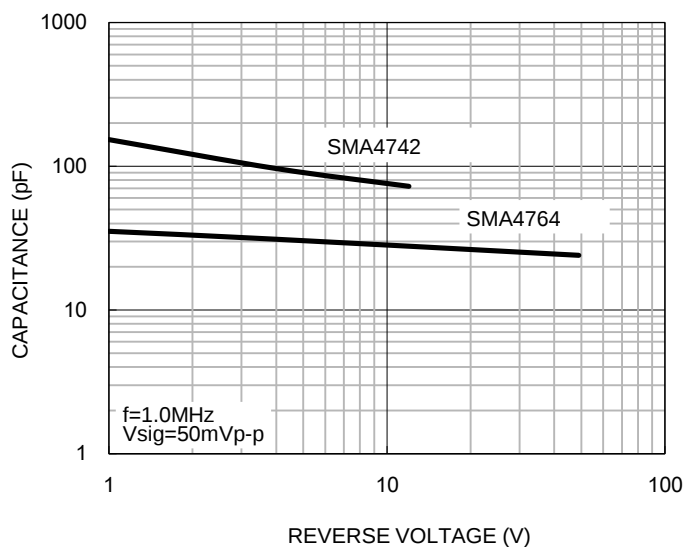


Fig.3 Typical Zener Impedance

