



1SMA4728A THRU 1SMAZ300A

SURFACE MOUNT ZENER DIODES

VZ: 3.3 - 300Volts

PD: 1 Watt

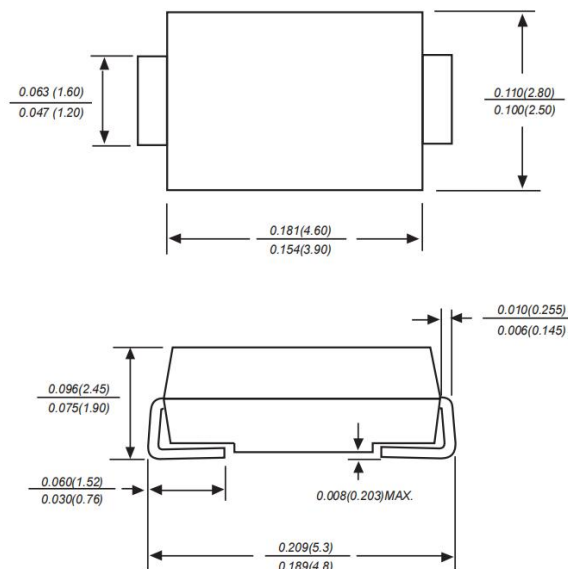
DO-214AC/SMA

FEATURES

- * Complete voltage range 3.3 to 100 volts
- * High peak reverse power dissipation
- * High reliability
- * Low leakage current
- * Standard zener voltage tolerance is $\pm 5\%$.

MECHANICAL DATA

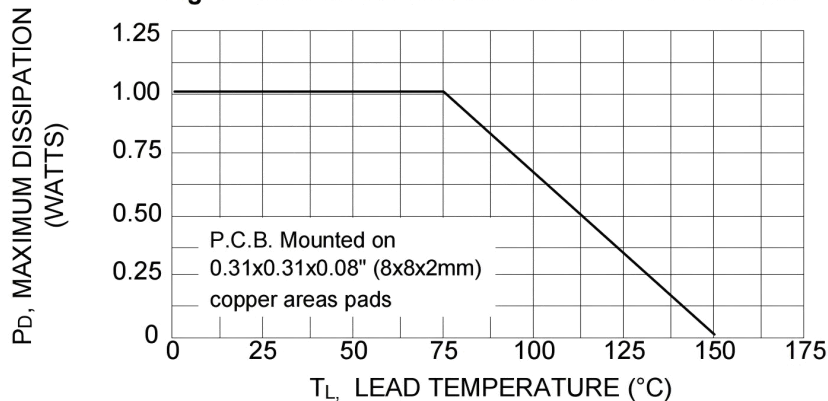
- * Case: SMA
- * Polarity: Color band denotes cathode end
- * Mounting Position: Any



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

Rating	Symbol	Value	Unit
DC Power Dissipation at $T_L = 75^\circ\text{C}$ (Note1)	PD	1.0	W
Maximum Forward Voltage at $I_F = 200 \text{ mA}$	VF	1.2	V
Junction Temperature Range	TJ	- 55 to + 150	$^\circ\text{C}$
Storage Temperature Range	TS	- 55 to + 150	$^\circ\text{C}$

Fig. 1 MAXIMUM CONTINUOUS POWER DERATING





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ELECTRICAL CHARACTERISTICS

Ratings at 25 °C ambient temperature unless otherwise specified

Type	Device Marking	Nominal Zener Voltage		Maximum Zener Impedance			Maximum Reverse Leakage Current		Maximum DC Zener Current	Maximum Surge Current
		V _Z @ I _{ZT}	I _{ZT}	Z _{ZT} @ I _{ZT}	Z _{ZK} @ I _{ZK}	I _{ZK}	I _R @ V _R		I _{ZM}	I _{RM(2)}
		(V)	(mA)	(Ω)	(Ω)	(mA)	(μA)	(V)	(mA)	(mApk)
1SMA4728A	728A	3.3	76	10	400	1	100	1	276	1380
1SMA4729A	729A	3.6	69	10	400	1	100	1	252	1260
1SMA4730A	730A	3.9	64	9	400	1	50	1	234	1190
1SMA4731A	731A	4.3	58	9	400	1	10	1	217	1070
1SMA4732A	732A	4.7	53	8	500	1	10	1	193	970
1SMA4733A	733A	5.1	49	7	550	1	10	1	178	890
1SMA4734A	734A	5.6	45	5	600	1	10	2	162	810
1SMA4735A	735A	6.2	41	2	700	1	10	3	146	730
1SMA4736A	736A	6.8	37	3.5	700	1	10	4	133	660
1SMA4737A	737A	7.5	34	4	700	0.5	10	5	121	605
1SMA4738A	738A	8.2	31	4.5	700	0.5	10	6	110	550
1SMA4739A	739A	9.1	28	5	700	0.5	10	7	100	500
1SMA4740A	740A	10	25	7	700	0.25	10	7.6	91	454
1SMA4741A	741A	11	23	8	700	0.25	5	8.4	83	414
1SMA4742A	742A	12	21	9	700	0.25	5	9.1	76	380
1SMA4743A	743A	13	19	10	700	0.25	5	9.9	69	344
1SMA4744A	744A	15	17	14	700	0.25	5	11.4	61	305
1SMA4745A	745A	16	15.5	16	700	0.25	5	12.2	57	285
1SMA4746A	746A	18	14	20	750	0.25	5	13.7	50	250
1SMA4747A	747A	20	12.5	22	750	0.25	5	15.2	45	225
1SMA4748A	748A	22	11.5	23	750	0.25	5	16.7	41	205
1SMA4749A	749A	24	10.5	25	750	0.25	5	18.2	38	190
1SMA4750A	750A	27	9.5	35	750	0.25	5	20.6	34	170
1SMA4751A	751A	30	8.5	40	1000	0.25	5	22.8	30	150
1SMA4752A	752A	33	7.5	45	1000	0.25	5	25.1	27	135
1SMA4753A	753A	36	7	50	1000	0.25	5	27.4	25	125
1SMA4754A	754A	39	6.5	60	1000	0.25	5	29.7	23	115
1SMA4755A	755A	43	6	70	1500	0.25	5	32.7	22	110
1SMA4756A	756A	47	5.5	80	1500	0.25	5	35.8	19	95
1SMA4757A	757A	51	5	95	1500	0.25	5	38.8	18	90
1SMA4758A	758A	56	4.5	110	2000	0.25	5	42.6	16	80
1SMA4759A	759A	62	4	125	2000	0.25	5	47.1	14	70
1SMA4760A	760A	68	3.7	150	2000	0.25	5	51.7	13	65



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		$V_Z @ I_{ZT}$	I_{ZT}	$Z_{ZT} @ I_{ZT}$	$Z_{ZK} @ I_{ZK}$	I_{ZK}	$I_R @ V_R$		I_{ZM}	$I_{RM(2)}$
		(V)	(mA)	(Ω)	(Ω)	(mA)	(μA)	(V)	(mA)	(mA _{pk})
1SMA4761A	761A	75	3.3	175	2000	0.25	5	56	12	60
1SMA4762A	762A	82	3	200	3000	0.25	5	62.2	11	55
1SMA4763A	763A	91	2.8	250	3000	0.25	5	69.2	10	50
1SMA4764A	764A	100	2.5	350	3000	0.25	5	76	9	45
1SMA4765A	765A	110	2.3	450	4000	0.25	5	83.6	8.6	40
1SMA4766A	766A	120	2	550	4500	0.25	5	91.2	7.8	37
1SMAZ130A	Z130A	130	1.9	700	5000	0.25	5	98.8	7	34
1SMAZ150A	Z150A	150	1.7	1000	6000	0.25	5	114	6.4	30
1SMAZ160A	Z160A	160	1.6	1100	6500	0.25	5	121.6	5.8	28
1SMAZ180A	Z180A	180	1.4	1200	7000	0.25	5	136.8	5.2	25
1SMAZ200A	Z200A	200	1.2	1900	9990	0.25	5	152	4.7	22
1SMAZ220A	Z220A	220	1	1600	8000	0.25	5	167.2	4	20
1SMAZ240A	Z240A	240	0.9	1800	8500	0.25	5	182.4	3.8	19
1SMAZ250A	Z250A	250	0.9	2000	9000	0.25	5	190	3.6	18
1SMAZ270A	Z270A	270	0.8	2100	9000	0.25	5	205	3.3	16
1SMAZ300A	Z300A	300	0.8	2300	9500	0.25	5	228	3	15

Notes:

- The type number listed have a standard tolerance on the nominal Zener voltage of $\pm 10\%$.
Suffix "A" indicates $\pm 5\%$ tolerance, suffix "C" indicates $\pm 2\%$ tolerance.
- 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