

SZ123D - SZ12D0

SURFACE MOUNT SILICON ZENER DIODES

V_Z : 3.3 - 200 Volts

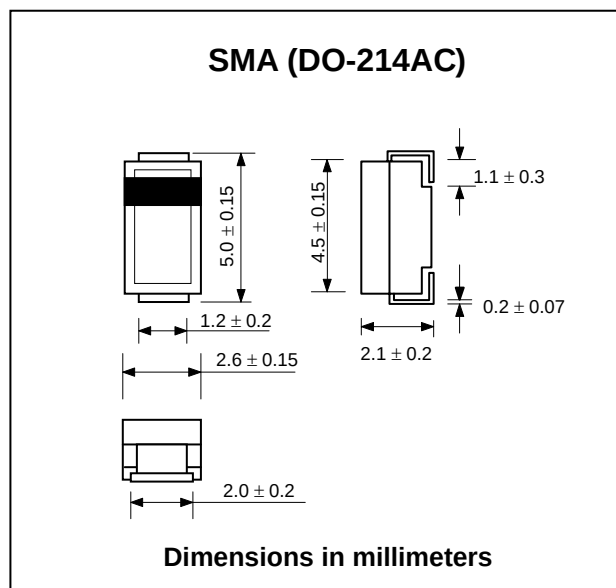
P_D : 1 Watt

FEATURES :

- * Complete Voltage Range 3.3 to 200 Volts
- * High peak reverse power dissipation
- * High reliability
- * Low leakage current
- * **Pb / RoHS Free**

MECHANICAL DATA

- * Case : SMA (DO-214AC) Molded plastic
- * Epoxy : UL94V-O rate flame retardant
- * Lead : Lead formed for Surface mount
- * Polarity : Color band denotes cathode end
- * Mounting position : Any
- * Weight : 0.064 gram



MAXIMUM RATINGS

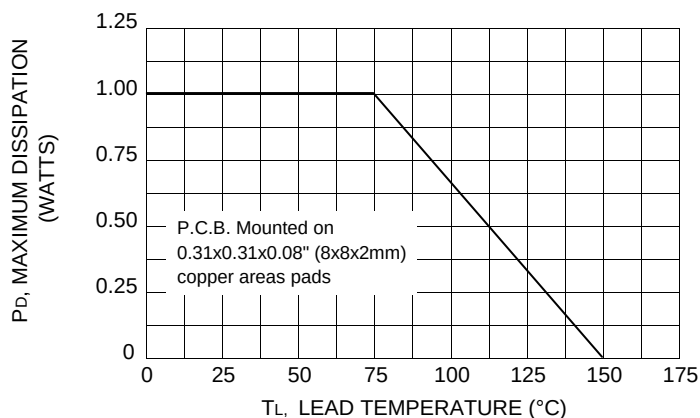
Rating at 25 °C ambient temperature unless otherwise specified

Rating	Symbol	Value	Unit
DC Power Dissipation at T _L = 75 °C (Note1)	P _D	1.0	W
Maximum Forward Voltage at I _F = 200 mA	V _F	1.2	V
Junction Temperature Range	T _J	- 55 to + 150	°C
Storage Temperature Range	T _S	- 55 to + 150	°C

Note :

- (1) P.C.B. Mounted on 0.31x0.31x0.08" (8x8x2mm) copper areas pads.

Fig. 1 MAXIMUM CONTINUOUS POWER DERATING



ELECTRICAL CHARACTERISTICS (Ta = 25 °C unless otherwise specified)

Type	Nominal Zener Voltage		Maximum Zener Impedance			Maximum Reverse Leakage Current		Maximum DC Zener Current	Maximum Surge Current
	Vz ⁽¹⁾ @ IzT	IzT	ZzT @ IzT	Zzk @ IzK	IzK	Ir @ VR		IzM	IRM ⁽²⁾
	(V)	(mA)	(Ω)	(Ω)	(mA)	(μA)	(V)	(mA)	(mApk)
SZ123D	3.3	76.0	10	400	1.0	100	1.0	276	1380
SZ123G	3.6	69.0	10	400	1.0	100	1.0	252	1260
SZ123J	3.9	64.0	9.0	400	1.0	50	1.0	234	1190
SZ124D	4.3	58.0	9.0	400	1.0	10	1.0	217	1070
SZ124H	4.7	53.0	8.0	500	1.0	10	1.0	193	970
SZ125B	5.1	49.0	7.0	550	1.0	10	1.0	178	890
SZ125G	5.6	45.0	5.0	600	1.0	10	2.0	162	810
SZ126C	6.2	41.0	2.0	700	1.0	10	3.0	146	730
SZ126I	6.8	37.0	3.5	700	1.0	10	4.0	133	660
SZ127F	7.5	34.0	4.0	700	0.5	10	5.0	121	605
SZ128C	8.2	31.0	4.5	700	0.5	10	6.0	110	550
SZ129B	9.1	28.0	5.0	700	0.5	10	7.0	100	500
SZ1210	10	25.0	7.0	700	0.25	10	7.6	91	454
SZ1211	11	23.0	8.0	700	0.25	5.0	8.4	83	414
SZ1212	12	21.0	9.0	700	0.25	5.0	9.1	76	380
SZ1213	13	19.0	10	700	0.25	5.0	9.9	69	344
SZ1215	15	17.0	14	700	0.25	5.0	11.4	61	305
SZ1216	16	15.5	16	700	0.25	5.0	12.2	57	285
SZ1218	18	14.0	20	750	0.25	5.0	13.7	50	250
SZ1220	20	12.5	22	750	0.25	5.0	15.2	45	225
SZ1222	22	11.5	23	750	0.25	5.0	16.7	41	205
SZ1224	24	10.5	25	750	0.25	5.0	18.2	38	190
SZ1227	27	9.5	35	750	0.25	5.0	20.6	34	170
SZ1230	30	8.5	40	1000	0.25	5.0	22.8	30	150
SZ1233	33	7.5	45	1000	0.25	5.0	25.1	27	135
SZ1236	36	7.0	50	1000	0.25	5.0	27.4	25	125
SZ1239	39	6.5	60	1000	0.25	5.0	29.7	23	115
SZ1243	43	6.0	70	1500	0.25	5.0	32.7	22	110
SZ1247	47	5.5	80	1500	0.25	5.0	35.8	19	95
SZ1251	51	5.0	95	1500	0.25	5.0	38.8	18	90
SZ1256	56	4.5	110	2000	0.25	5.0	42.6	16	80
SZ1262	62	4.0	125	2000	0.25	5.0	47.1	14	70
SZ1268	68	3.7	150	2000	0.25	5.0	51.7	13	65
SZ1275	75	3.3	175	2000	0.25	5.0	56.0	12	60
SZ1282	82	3.0	200	3000	0.25	5.0	62.2	11	55
SZ1291	91	2.8	250	3000	0.25	5.0	69.2	10	50
SZ12B0	100	2.5	350	3000	0.25	5.0	76.0	9.0	45
SZ12B1	110	2.3	450	4000	0.25	5.0	83.6	8.6	40
SZ12B2	120	2.0	550	4500	0.25	5.0	91.2	7.8	37
SZ12B3	130	1.9	700	5000	0.25	5.0	98.8	7.0	34
SZ12B5	150	1.7	1000	6000	0.25	5.0	114.0	6.4	30
SZ12B6	160	1.6	1100	6500	0.25	5.0	121.6	5.8	28
SZ12B8	180	1.4	1200	7000	0.25	5.0	136.8	5.2	25
SZ12D0	200	1.2	1900	9990	0.25	5.0	152.0	4.7	22

Notes :

- (1) The type number listed have a standard tolerance on the nominal zener voltage of $\pm 2\%$, altered the fourth number of type from " 2 " for $\pm 2\%$ tolerance to be " 5 " for $\pm 5\%$ tolerance and "0" for $\pm 10\%$ tolerance.
- (2) Surge current is a non-repetitive, 8.3ms pulse width square wave or equivalent sine-wave superimposed on IzT per JEDEC Method
- (3) " SZ " will be omitted in marking on the diode.