SZ503J - SZ50D0

SURFACE MOUNT SILICON ZENER DIODES

VOLTAGE RANGE: 3.9 - 200V
POWER: 3.0Watts

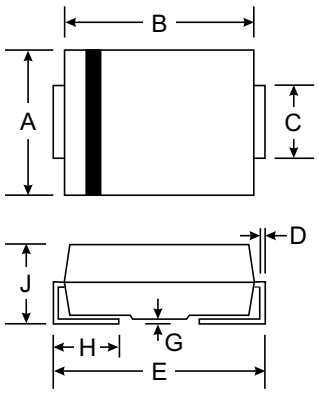
Features

- Complete Voltage Range 3.9 to 200 Volts
- High peak reverse power dissipation
- High reliability
- Low leakage current

Mechanical Data

- Case: SMA/DO-214AC, Molded Plastic
- Terminals: Solder Plated, Solderable per MIL-STD-750, Method 2026
- Polarity: Cathode Band or Cathode Notch
- Marking: Type Number
- Weight: 0.064 grams (approx.)

RoHS COMPLIANT



SMA(DO-214AC)		
Dim	**Min**	**Max**
A	2.29	2.92
B	4.00	4.60
C	1.27	1.63
D	0.15	0.31
E	4.80	5.59
G	0.10	0.20
H	0.76	1.52
J	2.01	2.62
All Dimensions in mm		

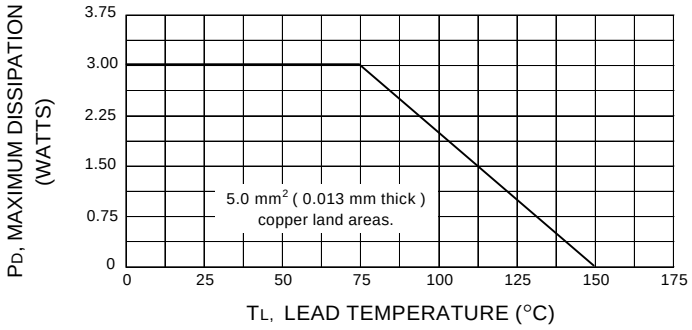
Maximum Ratings $T_A = 25°$

Rating	Symbol	Value	Unit
DC Power Dissipation at T_L = 75 °C (Note1)	P_D	3.0	W
Maximum Forward Voltage at I_F = 200 mA	V_F	1.5	V
Junction Temperature Range	T_J	- 55 to + 150	°C
Storage Temperature Range	Ts	- 55 to + 150	°C

Note :

(1) T_L = Lead temperature at 5.0 mm^2 (0.013 mm thick) copper land areas.

Fig. 1 POWER TEMPERATURE DERATING CURVE



ELECTRICAL CHARACTERISTICS

Rating at 25 °C ambient temperature unless otherwise specified

TYPE	Nominal Zener Voltage		Maximum Zener Impedance			Maximum Reverse Leakage Current		Maximum DC Zener Current
	V_Z @ I_{ZT}	I_{ZT}	Z_{ZT} @ I_{ZT}	Z_{ZK} @ I_{ZK}	I_{ZK}	I_R @ V_R		I_{ZM}
	(V)	(mA)	(Ω)	(Ω)	(mA)	(μA)	(V)	(mA)
SZ503J	3.9	192	4.5	400	1.0	80	1.0	630
SZ504D	4.3	174	4.5	400	1.0	50	1.0	590
SZ504H	4.7	160	4.0	500	1.0	50	1.0	550
SZ505B	5.1	147	3.5	550	1.0	50	1.0	520
SZ505G	5.6	134	2.5	600	1.0	50	2.0	480
SZ506C	6.2	121	1.5	700	1.0	50	3.0	435
SZ506I	6.8	110	2.0	700	1.0	50	4.0	393
SZ507F	7.5	100	2.0	700	0.5	50	5.0	360
SZ508C	8.2	91	2.3	700	0.5	50	6.0	330
SZ509B	9.1	82	2.5	700	0.5	50	7.0	297
SZ5010	10	75	3.5	700	0.3	50	7.6	270
SZ5011	11	68	4.0	700	0.25	50	8.4	225
SZ5012	12	63	4.5	700	0.25	1.0	9.1	246
SZ5013	13	58	4.5	700	0.25	0.5	9.1	208
SZ5014	14	53	5.0	700	0.25	0.5	10.6	193
SZ5015	15	50	5.5	700	0.25	0.5	11.4	180
SZ5016	16	47	5.5	700	0.25	0.5	12.2	169
SZ5017	17	44	6.0	750	0.25	0.5	13.0	159
SZ5018	18	42	6.0	750	0.25	0.5	13.7	150
SZ5019	19	40	7.0	750	0.25	0.5	14.4	142
SZ5020	20	37	7.0	750	0.25	0.5	15.2	135
SZ5022	22	34	8.0	750	0.25	0.5	16.7	123
SZ5024	24	31	9.0	750	0.25	0.5	18.2	112
SZ5027	27	28	10	750	0.25	0.5	20.6	100
SZ5028	28	27	12	750	0.25	0.5	21.0	96
SZ5030	30	25	16	1000	0.25	0.5	22.5	90
SZ5033	33	23	20	1000	0.25	0.5	25.1	82
SZ5036	36	21	22	1000	0.25	0.5	27.4	75
SZ5039	39	19	28	1000	0.25	0.5	29.7	69
SZ5043	43	17	33	1500	0.25	0.5	32.7	63
SZ5047	47	16	38	1500	0.25	0.5	35.6	57
SZ5051	51	15	45	1500	0.25	0.5	38.8	53
SZ5056	56	13	50	2000	0.25	0.5	42.6	48
SZ5062	62	12	55	2000	0.25	0.5	47.1	44
SZ5068	68	11	70	2000	0.25	0.5	51.7	40
SZ5075	75	10	85	2000	0.25	0.5	56.0	36
SZ5082	82	9.1	95	3000	0.25	0.5	62.2	33
SZ5091	91	8.2	115	3000	0.25	0.5	69.2	30
SZ50B0	100	7.5	160	3000	0.25	0.5	76.0	27
SZ50B1	110	6.8	225	4000	0.25	0.5	83.6	25
SZ50B2	120	6.3	300	4500	0.25	0.5	91.2	22
SZ50B3	130	5.8	375	5000	0.25	0.5	98.8	21
SZ50B4	140	5.3	475	5000	0.25	0.5	106.4	19
SZ50B5	150	5.0	550	6000	0.25	0.5	114.0	18
SZ50B6	160	4.7	625	6500	0.25	0.5	121.6	17
SZ50B7	170	4.4	650	7000	0.25	0.5	130.4	16
SZ50B8	180	4.2	700	7000	0.25	0.5	136.8	15
SZ50B9	190	4.0	800	8000	0.25	0.5	144.8	14
SZ50D0	200	3.7	875	8000	0.25	0.5	152.0	13

Note :

(1) The type number listed have a standard tolerance on the nominal zener voltage of ± 10%, altered the fourth number of type from " 0 " for ± 10% tolerance to be " 5 " for ± 5% tolerance.

(2) " SZ " will be omitted in marking on the diode.