



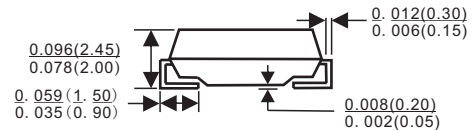
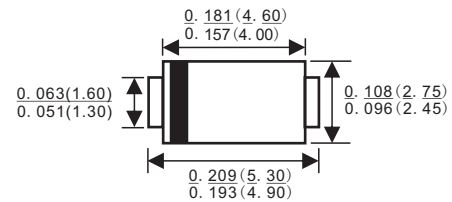
FEATURES :

- ✧ Complete Voltage Range 2.7 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 grams

SMA/DO-214AC



Dimensions in inches and (millimeters)

MAXIMUM RATINGS

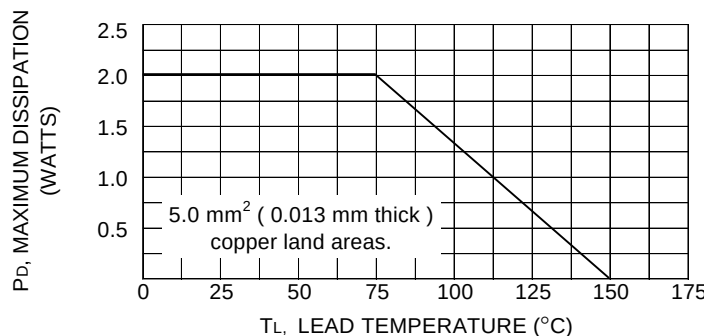
Rating at 25 °C ambient temperature unless otherwise specified

Rating	Symbol	Value	Unit
DC Power Dissipation at $T_L = 75\text{ °C}$ (Note1)	P_D	2.0	W
Maximum Forward Voltage at $I_F = 200\text{ mA}$	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) 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	Marking	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)
SZ452H	452H	2.7	80	10	400	1.0	100	1.0	660
SZ453A	453A	3.0	160	8.0	400	1.0	100	1.0	600
SZ453D	453D	3.3	145	8.0	400	1.0	80	1.0	545
SZ453G	453G	3.6	139	5.0	400	1.0	80	1.0	504
SZ453J	453J	3.9	128	5.0	400	1.0	50	1.0	468
SZ454D	454D	4.3	116	4.5	400	1.0	50	1.0	434
SZ454H	454H	4.7	106	4.5	550	1.0	50	1.0	386
SZ455B	455B	5.1	98.0	3.5	600	1.0	50	1.0	356
SZ455G	455G	5.6	89.5	2.5	500	1.0	50	2.0	324
SZ456C	456C	6.2	80.5	1.5	700	1.0	50	3.0	292
SZ456I	456I	6.8	73.5	2.0	700	1.0	50	4.0	266
SZ457F	457F	7.5	66.5	2.0	700	0.5	50	5.0	242
SZ458C	458C	8.2	61.0	2.3	700	0.5	50	6.0	220
SZ459B	459B	9.1	55.0	2.5	700	0.5	50	7.0	200
SZ4510	4510	10	50.0	3.5	700	0.25	50	7.6	182
SZ4511	4511	11	45.5	4.0	700	0.25	50	8.4	166
SZ4512	4512	12	41.5	4.5	700	0.25	1.0	9.1	152
SZ4513	4513	13	38.5	5.0	700	0.25	0.5	9.9	138
SZ4514	4514	14	35.7	5.5	700	0.25	0.5	10.6	130
SZ4515	4515	15	33.4	7.0	700	0.25	0.5	11.4	122
SZ4516	4516	16	31.2	8.0	700	0.25	0.5	12.2	114
SZ4517	4517	17	29.4	9.0	750	0.25	0.5	13.0	107
SZ4518	4518	18	27.8	10	750	0.25	0.5	13.7	100
SZ4519	4519	19	26.3	11	750	0.25	0.5	14.4	95
SZ4520	4520	20	25.0	11	750	0.25	0.5	15.2	90
SZ4522	4522	22	22.8	12	750	0.25	0.5	16.7	82
SZ4524	4524	24	20.8	13	750	0.25	0.5	18.2	76
SZ4527	4527	27	18.5	18	750	0.25	0.5	20.6	68
SZ4530	4530	30	16.6	20	1000	0.25	0.5	22.5	60
SZ4533	4533	33	15.1	23	1000	0.25	0.5	25.1	55
SZ4536	4536	36	13.9	25	1000	0.25	0.5	27.4	50
SZ4539	4539	39	12.8	30	1000	0.25	0.5	29.7	47
SZ4543	4543	43	11.6	35	1500	0.25	0.5	32.7	43
SZ4547	4547	47	10.6	40	1500	0.25	0.5	35.8	39
SZ4551	4551	51	9.8	48	1500	0.25	0.5	38.8	36
SZ4556	4556	56	9.0	55	2000	0.25	0.5	42.6	32
SZ4562	4562	62	8.1	60	2000	0.25	0.5	47.1	29
SZ4568	4568	68	7.4	75	2000	0.25	0.5	51.7	27
SZ4575	4575	75	6.7	90	2000	0.25	0.5	56.0	24
SZ4582	4582	82	6.1	100	3000	0.25	0.5	62.2	22
SZ4591	4591	91	5.5	125	3000	0.25	0.5	69.2	20
SZ45B0	45B0	100	5.0	175	3000	0.25	0.5	76.0	18
SZ45B1	45B1	110	4.5	250	4000	0.25	0.5	83.6	17
SZ45B2	45B2	120	4.2	325	4500	0.25	0.5	91.2	15
SZ45B3	45B3	130	3.8	400	5000	0.25	0.5	98.8	14
SZ45B4	45B4	140	3.6	500	5500	0.25	0.5	106.4	13
SZ45B5	45B5	150	3.3	575	6000	0.25	0.5	114.0	12
SZ45B6	45B6	160	3.1	650	6500	0.25	0.5	121.6	11
SZ45B7	45B7	170	2.9	675	7000	0.25	0.5	130.4	11
SZ45B8	45B8	180	2.8	725	7000	0.25	0.5	136.8	10
SZ45B9	45B9	190	2.6	825	8000	0.25	0.5	144.8	10
SZ45D0	45D0	200	2.5	900	8000	0.25	0.5	152.0	9.0

Notes :

- (1) The type number listed have a standard tolerance on the nominal zener voltage of $\pm 5.0\%$, altered the fourth number of type from " 5 " for $\pm 5.0\%$ tolerance to be " 0 " for $\pm 10\%$ tolerance.
- (2) " SZ " will be omitted in marking on the diode.

PACKAGE	SPQ/PCS	CARTON SPQ/PCS	CARTON SIZE/CM	CARTON GW/KG	CARTON NW/KG
SMA	5000/REEL	80000	36X30.6X31	12.00	11.00