

# SZ403G - SZ40D0

# SURFACE MOUNT SILICON ZENER DIODES

**V<sub>Z</sub> : 3.6 - 200 Volts**

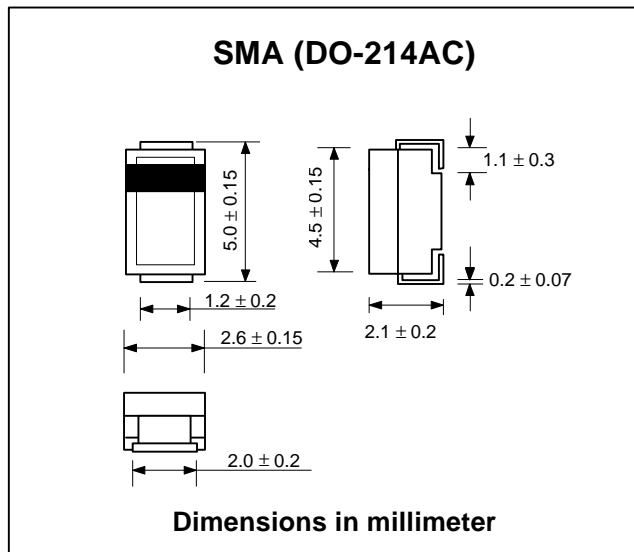
**P<sub>D</sub> : 2 Watts**

## FEATURES :

- \* Complete Voltage Range 3.6 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



## MAXIMUM RATINGS

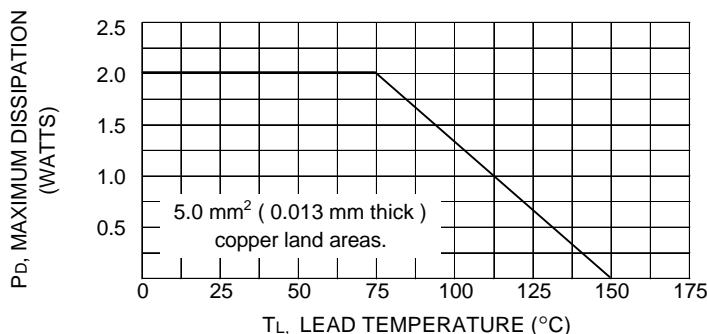
Rating at 25 °C ambient temperature unless otherwise specified

Rating	Symbol	Value	Unit
DC Power Dissipation at T <sub>L</sub> = 75 °C (Note1)	P <sub>D</sub>	2.0	W
Maximum Forward Voltage at I <sub>F</sub> = 200 mA	V <sub>F</sub>	1.2	V
Junction Temperature Range	T <sub>J</sub>	- 55 to + 150	°C
Storage Temperature Range	T <sub>s</sub>	- 55 to + 150	°C

### Note :

(1) T<sub>L</sub> = Lead temperature at 5.0 mm<sup>2</sup> ( 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 <sub>Z</sub> @ I <sub>ZT</sub>	I <sub>ZT</sub>	Z <sub>ZT</sub> @ I <sub>ZT</sub>	Z <sub>ZK</sub> @ I <sub>ZK</sub>	I <sub>ZK</sub>	I <sub>R</sub> @ V <sub>R</sub>		I <sub>ZM</sub>
	(V)	(mA)	(Ω)	(Ω)	(mA)	(μA)	(V)	(mA)
SZ403G	3.6	139	5.0	400	1.0	80	1.0	504
SZ403J	3.9	128	5.0	400	1.0	50	1.0	468
SZ404D	4.3	116	4.5	400	1.0	50	1.0	434
SZ404H	4.7	106	4.5	550	1.0	50	1.0	386
SZ405B	5.1	98.0	3.5	600	1.0	50	1.0	356
SZ405G	5.6	89.5	2.5	500	1.0	50	2.0	324
SZ406C	6.2	80.5	1.5	700	1.0	50	3.0	292
SZ406I	6.8	73.5	2.0	700	1.0	50	4.0	266
SZ407F	7.5	66.5	2.0	700	0.5	50	5.0	242
SZ408C	8.2	61.0	2.3	700	0.5	50	6.0	220
SZ409B	9.1	55.0	2.5	700	0.5	50	7.0	200
SZ4010	10	50.0	3.5	700	0.25	50	7.6	182
SZ4011	11	45.5	4.0	700	0.25	50	8.4	166
SZ4012	12	41.5	4.5	700	0.25	1.0	9.1	152
SZ4013	13	38.5	5.0	700	0.25	0.5	9.9	138
SZ4014	14	35.7	5.5	700	0.25	0.5	10.6	130
SZ4015	15	33.4	7.0	700	0.25	0.5	11.4	122
SZ4016	16	31.2	8.0	700	0.25	0.5	12.2	114
SZ4017	17	29.4	9.0	750	0.25	0.5	13.0	107
SZ4018	18	27.8	10	750	0.25	0.5	13.7	100
SZ4019	19	26.3	11	750	0.25	0.5	14.4	95
SZ4020	20	25.0	11	750	0.25	0.5	15.2	90
SZ4022	22	22.8	12	750	0.25	0.5	16.7	82
SZ4024	24	20.8	13	750	0.25	0.5	18.2	76
SZ4027	27	18.5	18	750	0.25	0.5	20.6	68
SZ4030	30	16.6	20	1000	0.25	0.5	22.5	60
SZ4033	33	15.1	23	1000	0.25	0.5	25.1	55
SZ4036	36	13.9	25	1000	0.25	0.5	27.4	50
SZ4039	39	12.8	30	1000	0.25	0.5	29.7	47
SZ4043	43	11.6	35	1500	0.25	0.5	32.7	43
SZ4047	47	10.6	40	1500	0.25	0.5	35.8	39
SZ4051	51	9.8	48	1500	0.25	0.5	38.8	36
SZ4056	56	9.0	55	2000	0.25	0.5	42.6	32
SZ4062	62	8.1	60	2000	0.25	0.5	47.1	29
SZ4068	68	7.4	75	2000	0.25	0.5	51.7	27
SZ4075	75	6.7	90	2000	0.25	0.5	56.0	24
SZ4082	82	6.1	100	3000	0.25	0.5	62.2	22
SZ4091	91	5.5	125	3000	0.25	0.5	69.2	20
SZ40B0	100	5.0	175	3000	0.25	0.5	76.0	18
SZ40B1	110	4.5	250	4000	0.25	0.5	83.6	17
SZ40B2	120	4.2	325	4500	0.25	0.5	91.2	15
SZ40B3	130	3.8	400	5000	0.25	0.5	98.8	14
SZ40B4	140	3.6	500	5500	0.25	0.5	106.4	13
SZ40B5	150	3.3	575	6000	0.25	0.5	114.0	12
SZ40B6	160	3.1	650	6500	0.25	0.5	121.6	11
SZ40B7	170	2.9	675	7000	0.25	0.5	130.4	11
SZ40B8	180	2.8	725	7000	0.25	0.5	136.8	10
SZ40B9	190	2.6	825	8000	0.25	0.5	144.8	10
SZ40D0	200	2.5	900	8000	0.25	0.5	152.0	9.0

**Note :**

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