

# SMZ15 Series

# SURFACE MOUNT SILICON ZENER DIODES

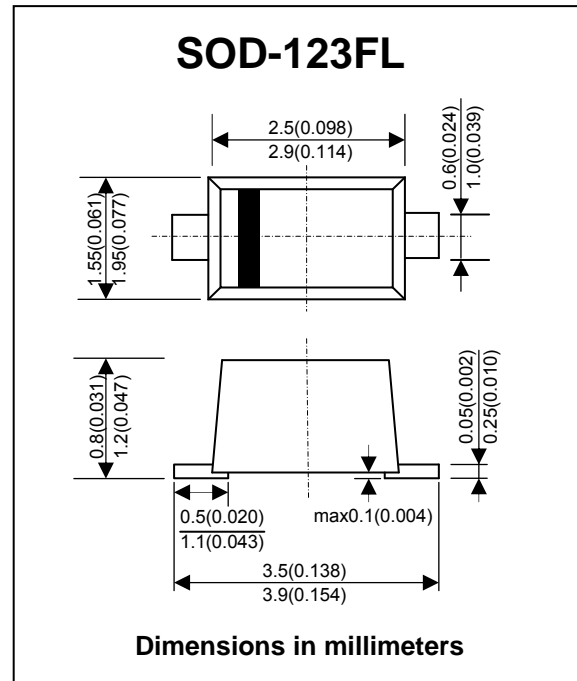
**V<sub>Z</sub> : 3.3 - 200 Volts**  
**P<sub>D</sub> : 1 Watt**

### FEATURES :

- \* Complete voltage range 3.3 to 200 Volts
- \* High peak reverse power dissipation
- \* High reliability
- \* Low leakage current
- \* **Pb Free / RoHS Compliant**

### MECHANICAL DATA :

- \* Case: JEDEC SOD-123FL, molded plastic over passivated chip
- \* Terminals: Solder Plated, solderable per method 208 guaranteed
- \* Polarity: Color band denotes cathode end
- \* Mounting position : Any
- \* Weight: 0.02 gram (Approximate)



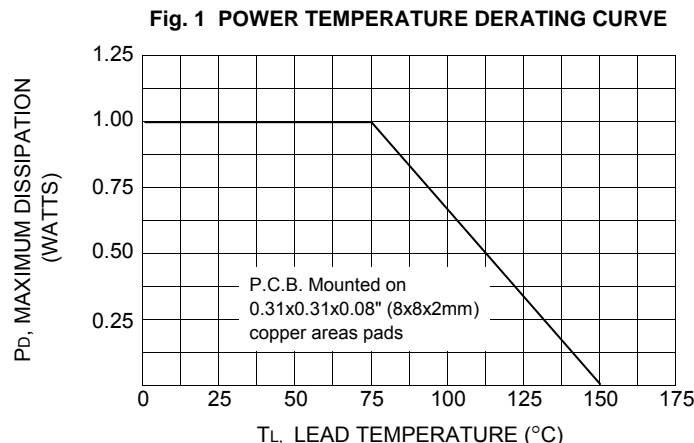
### MAXIMUM RATINGS

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>	1.0	Watt
Maximum Forward Voltage at I <sub>F</sub> = 200 mA	V <sub>F</sub>	1.2	Volts
Maximum Thermal Resistance Junction to Ambient Air (Note2)	R <sub>θJA</sub>	170	K / W
Junction Temperature Range	T <sub>J</sub>	- 55 to + 150	°C
Storage Temperature Range	T <sub>STG</sub>	- 55 to + 150	°C

### Note :

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



## ELECTRICAL CHARACTERISTICS (Rating at 25 °C ambient temperature unless otherwise specified)

Type No.	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)	( $\Omega$ )	( $\Omega$ )	(mA)	( $\mu$ A)	(V)	(mA)	(mApk)
SMZ153D	1A	3.3	76.0	10	400	1.0	100	1.0	276	1380
SMZ153G	1B	3.6	69.0	10	400	1.0	100	1.0	252	1260
SMZ153J	1C	3.9	64.0	9.0	400	1.0	50	1.0	234	1190
SMZ154D	1D	4.3	58.0	9.0	400	1.0	10	1.0	217	1070
SMZ154H	1E	4.7	53.0	8.0	500	1.0	10	1.0	193	970
SMZ155B	1F	5.1	49.0	7.0	550	1.0	10	1.0	178	890
SMZ155G	1H	5.6	45.0	5.0	600	1.0	10	2.0	162	810
SMZ156C	1J	6.2	41.0	2.0	700	1.0	10	3.0	146	730
SMZ156I	1K	6.8	37.0	3.5	700	1.0	10	4.0	133	660
SMZ157F	1M	7.5	34.0	4.0	700	0.5	10	5.0	121	605
SMZ158C	1N	8.2	31.0	4.5	700	0.5	10	6.0	110	550
SMZ159B	1P	9.1	28.0	5.0	700	0.5	10	7.0	100	500
SMZ1515	1R	10	25.0	7.0	700	0.25	10	7.6	91	454
SMZ1511	1X	11	23.0	8.0	700	0.25	5.0	8.4	83	414
SMZ1512	1Y	12	21.0	9.0	700	0.25	5.0	9.1	76	380
SMZ1513	1Z	13	19.0	10	700	0.25	5.0	9.9	69	344
SMZ1515	2A	15	17.0	14	700	0.25	5.0	11.4	61	305
SMZ1516	2B	16	15.5	16	700	0.25	5.0	12.2	57	285
SMZ1518	2C	18	14.0	20	750	0.25	5.0	13.7	50	250
SMZ1520	2D	20	12.5	22	750	0.25	5.0	15.2	45	225
SMZ1522	2E	22	11.5	23	750	0.25	5.0	16.7	41	205
SMZ1524	2F	24	10.5	25	750	0.25	5.0	18.2	38	190
SMZ1527	2H	27	9.5	35	750	0.25	5.0	20.6	34	170
SMZ1530	2J	30	8.5	40	1000	0.25	5.0	22.8	30	150
SMZ1533	2K	33	7.5	45	1000	0.25	5.0	25.1	27	135
SMZ1536	2M	36	7.0	50	1000	0.25	5.0	27.4	25	125
SMZ1539	2N	39	6.5	60	1000	0.25	5.0	29.7	23	115
SMZ1543	2P	43	6.0	70	1500	0.25	5.0	32.7	22	110
SMZ1547	2R	47	5.5	80	1500	0.25	5.0	35.8	19	95
SMZ1551	2X	51	5.0	95	1500	0.25	5.0	38.8	18	90
SMZ1556	2Y	56	4.5	110	2000	0.25	5.0	42.6	16	80
SMZ1562	2Z	62	4.0	125	2000	0.25	5.0	47.1	14	70
SMZ1568	3A	68	3.7	150	2000	0.25	5.0	51.7	13	65
SMZ1575	3B	75	3.3	175	2000	0.25	5.0	56.0	12	60
SMZ1582	3C	82	3.0	200	3000	0.25	5.0	62.2	11	55
SMZ1591	3D	91	2.8	250	3000	0.25	5.0	69.2	10	50
SMZ15B0	3E	100	2.5	350	3000	0.25	5.0	76.0	9.0	45
SMZ15B1	3F	110	2.3	450	4000	0.25	5.0	83.6	8.6	40
SMZ15B2	3H	120	2.0	550	4500	0.25	5.0	91.2	7.8	37
SMZ15B3	3J	130	1.9	700	5000	0.25	5.0	98.8	7.0	34
SMZ15B5	3K	150	1.7	1000	6000	0.25	5.0	114.0	6.4	30
SMZ15B6	3M	160	1.6	1100	6500	0.25	5.0	121.6	5.8	28
SMZ15B8	3N	180	1.4	1200	7000	0.25	5.0	136.8	5.2	25
SMZ15D0	3P	200	1.2	1900	9990	0.25	5.0	152.0	4.7	22

Note :

(1) The type number listed have a standard tolerance on the nominal zener voltage of  $\pm 5\%$ .