

# SMZ25 Series

# SURFACE MOUNT SILICON ZENER DIODES

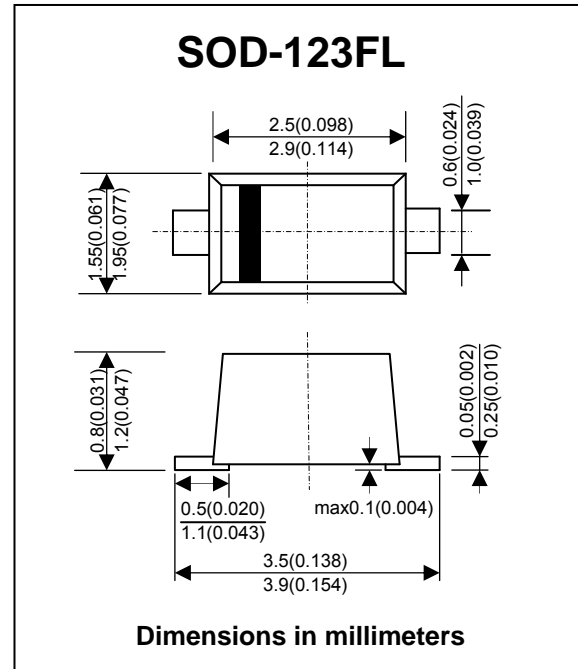
**V<sub>Z</sub> : 3.0 - 200 Volts**  
**P<sub>D</sub> : 1.3 Watts**

### FEATURES :

- \* Complete Voltage Range 3.0 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

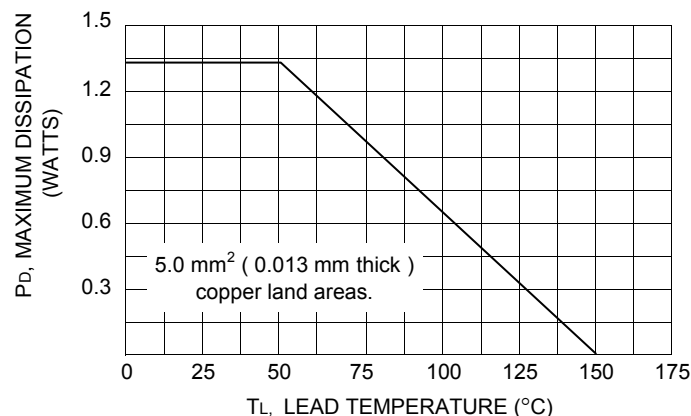
Rating at 25 °C ambient temperature unless otherwise specified.

Rating	Symbol	Value	Unit
DC Power Dissipation at T <sub>L</sub> = 50 °C (Note1)	P <sub>D</sub>	1.3	Watts
Maximum Forward Voltage at I <sub>F</sub> = 200 mA	V <sub>F</sub>	1.2	Volts
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 No.	Marking	Nominal Zener Voltage		Maximum Zener Impedance			Maximum Reverse Leakage Current		Maximum DC Zener Current
		$V_Z @ I_{ZT}$	$I_{ZT}$	$Z_{ZT} @ I_{ZT}$	$Z_{ZK} @ I_{ZK}$	$I_{ZK}$	$I_R @ V_R$	$V_R$	$I_{ZM}$
		(V)	(mA)	( $\Omega$ )	( $\Omega$ )	(mA)	( $\mu$ A)	(V)	(mA)
SMZ253A	6A	3.0	80	20	400	1.0	100	1.0	340
SMZ253D	6B	3.3	80	20	400	1.0	40	1.0	320
SMZ253G	6C	3.6	70	20	500	1.0	20	1.0	290
SMZ253J	6D	3.9	60	15	500	1.0	10	1.0	280
SMZ254D	6E	4.3	50	13	500	1.0	3.0	1.0	250
SMZ254H	6F	4.7	45	13	500	1.0	3.0	1.0	215
SMZ255B	6H	5.1	45	10	500	1.0	1.0	1.5	200
SMZ255G	6J	5.6	45	7.0	400	1.0	1.0	2.0	190
SMZ256C	6K	6.2	35	4.0	300	1.0	1.0	3.0	170
SMZ256I	6M	6.8	35	3.5	300	1.0	50	4.0	155
SMZ257F	6N	7.5	35	3.0	200	0.5	50	4.5	140
SMZ258C	6P	8.2	25	5.0	200	0.5	50	6.2	130
SMZ259B	6R	9.1	25	5.0	200	0.5	50	6.8	120
SMZ2510	6X	10	25	7.0	200	0.5	50	7.5	105
SMZ2511	6Y	11	20	8.0	300	0.5	50	8.2	97
SMZ2512	6Z	12	20	9.0	350	0.5	0.5	9.1	88
SMZ2513	7A	13	20	10	400	0.5	0.5	10	79
SMZ2515	7B	15	15	15	500	0.5	0.5	11	71
SMZ2516	7C	16	15	15	500	0.5	0.5	12	66
SMZ2518	7D	18	15	20	500	0.5	0.5	13	62
SMZ2519	7E	19	15	20	550	0.5	0.5	14	58
SMZ2520	7F	20	10	24	600	0.5	0.5	15	56
SMZ2522	7H	22	10	25	600	0.5	0.5	16	52
SMZ2524	7J	24	10	25	600	0.5	0.5	18	47
SMZ2527	7K	27	8.0	30	750	0.25	0.5	20	41
SMZ2530	7M	30	8.0	30	1000	0.25	0.5	22	36
SMZ2533	7N	33	8.0	35	1000	0.25	0.5	24	33
SMZ2536	7P	36	8.0	40	1000	0.25	0.5	27	30
SMZ2539	7R	39	6.0	50	1000	0.25	0.5	30	28
SMZ2543	7X	43	6.0	50	1000	0.25	0.5	33	26
SMZ2547	7Y	47	4.0	90	1500	0.25	0.5	36	23
SMZ2551	7Z	51	4.0	115	1500	0.25	0.5	39	21
SMZ2556	8A	56	4.0	120	2000	0.25	0.5	43	19
SMZ2562	8B	62	4.0	125	2000	0.25	0.5	47	16
SMZ2568	8C	68	4.0	130	2000	0.25	0.5	51	15
SMZ2575	8D	75	4.0	135	2000	0.25	0.5	56	14
SMZ2582	8E	82	2.7	200	3000	0.25	0.5	62	12
SMZ2591	8F	91	2.7	250	3000	0.25	0.5	68	10
SMZ25B0	8H	100	2.7	350	3000	0.25	0.5	75	9.4
SMZ25B1	8J	110	2.7	450	4000	0.25	0.5	82	8.6
SMZ25B2	8K	120	2.0	550	4500	0.25	0.5	91	7.8
SMZ25B3	8M	130	2.0	700	5000	0.25	0.5	100	7.0
SMZ25B5	8N	150	2.0	1000	6000	0.25	0.5	110	6.4
SMZ25B6	8P	160	1.5	1100	6500	0.25	0.5	120	5.8
SMZ25B8	8R	180	1.5	1200	7000	0.25	0.5	130	5.2
SMZ25D0	8X	200	1.5	1900	9990	0.25	0.5	150	4.7

Note :

- (1) The type number listed have a standard tolerance on the nominal zener voltage of  $\pm 5.0\%$ .