SMZ25 Series

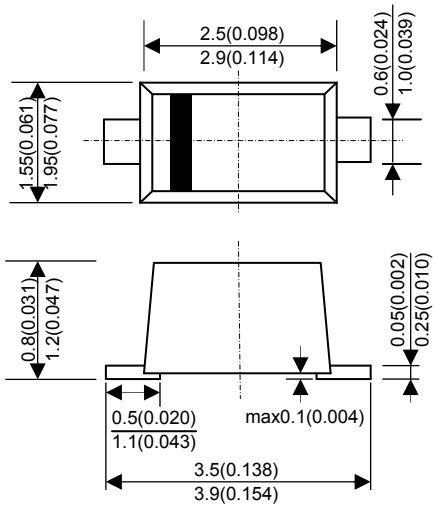
SURFACE MOUNT SILICON ZENER DIODES

V_Z : 3.0 - 200 Volts
P_D : 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)

SOD-123FL



Dimensions in millimeters

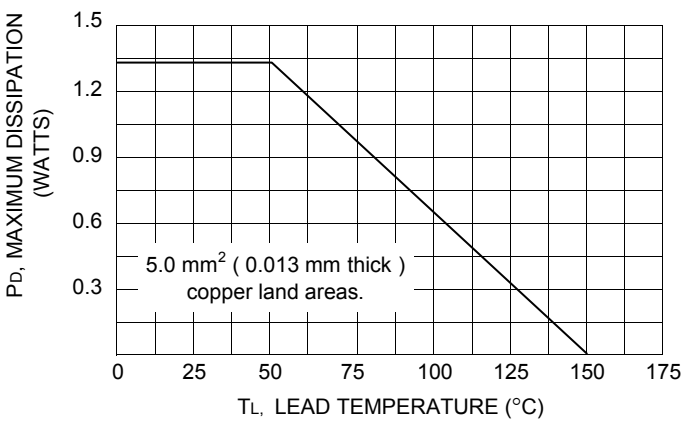
MAXIMUM RATINGS
Rating at 25 °C ambient temperature unless otherwise specified.

Rating	Symbol	Value	Unit
DC Power Dissipation at T_L = 50 °C (Note1)	P_D	1.3	Watts
Maximum Forward Voltage at I_F = 200 mA	V_F	1.2	Volts
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 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		I_{ZM}
		(V)	(mA)	(Ω)	(Ω)	(mA)	(μA)	(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 ± 5.0%.