SURFACE MOUNT ZENER DIODES

Features

- Low profile package
- Ideal for automated placement
- Glass passivated chip junction
- Fast switching for high efficiency
- High forward surge capability
- Meets MSL level 1, per J-STD-020, LF maximum peak of 260 °C

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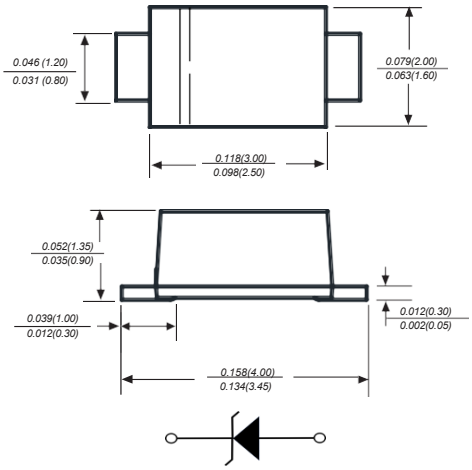
SOD-123FL



Dimensions in inches and (millimeters)

Maximum Ratings And Electrical Characteristics

Ratings at 25°C ambient temperature unless otherwise specified.

Catalog Number	SYMBOLS	VALUE	UNITS
DC power dissipation at TL = 75 °C	P_D	1.0	W
Maximum instantaneous forward voltage@ I_F=200mA	V_F	1.2	V
Zener current	IZ	PV /VZ	mA
Operating and Storage Temperature Range	T_J, T_{STG}	-55 to + 150	°C

Ratings And Characteristic Curves

Part Number	Device Marking Code	Nominal Zener voltage			Test current	Maximum dynamic impedance resistance			Maximum reverse leakage current		Maximum Surge Current	Maximum DC Zener Current
		Min V_Z(1) at I_{ZT}	Typ. V_Z(1) at IZT	Max V_Z(1) at I_{ZT}	I_{ZT}	Z_{ZT} at I_{ZT}	Z_{ZK} at I_{ZK}	I_{ZK}	I_R	Test voltage V_R	I_{RM}(2)	I_{ZM}
		V	V	V	mA	Ω	Ω	mA	μA	V	mA	mA
SMF4728A	28A	3.14	3.3	3.47	75	10	400	1	100	1	1370	274
SMF4729A	29A	3.42	3.6	3.78	69	10	400	1	100	1	1255	251
SMF4730A	30A	3.71	3.9	4.1	64	9	400	1	50	1	1160	232
SMF4731A	31A	4.09	4.3	4.52	58	9	400	1	25	1	1050	210
SMF4732A	32A	4.47	4.7	4.94	53	8	500	1	10	1	960	192
SMF4733A	33A	4.85	5.1	5.36	49	7	550	1	10	1	885	177
SMF4734A	34A	5.32	5.6	5.88	45	5	600	1	10	2	805	161

Part Number	Device Marking Code	Nominal Zener voltage			Test current	Maximum dynamic impedance resistance			Maximum reverse leakage current		Maximum Surge Current	Maximum DC Zener Current
		Min V_Z(1) at I_{ZT}	Typ. V_Z(1) at IZT	Max V_Z(1) at I_{ZT}	I_{ZT}	Z_{ZT} at I_{ZT}	Z_{ZK} at I_{ZK}	I_{ZK}	I_R	Test voltage V_R	I_{RM}(2)	I_{ZM}
		V	V	V	mA	Ω	Ω	mA	μA	V	mA	mA
SMF4735A	35A	5.89	6.2	6.51	41	2	700	1	10	3	730	146
SMF4736A	36A	6.46	6.8	7.14	37	3.5	700	1	10	4	660	133
SMF4737A	37A	7.13	7.5	7.88	34	4	700	0.5	10	5	605	121
SMF4738A	38A	7.79	8.2	8.61	31	4.5	700	0.5	10	6	550	110
SMF4739A	39A	8.65	9.1	9.56	28	5	700	0.5	10	7	500	100
SMF4740A	40A	9.5	10	10.5	25	7	700	0.25	10	7.6	454	91
SMF4741A	41A	10.45	11	11.55	23	8	700	0.25	5	8.4	414	83
SMF4742A	42A	11.4	12	12.6	21	9	700	0.25	5	9.1	380	76
SMF4743A	43A	12.35	13	13.65	19	10	700	0.25	5	9.9	344	69
SMF4744A	44A	14.25	15	15.75	17	14	700	0.25	5	11.4	304	61
SMF4745A	45A	15.2	16	16.8	15.5	16	700	0.25	5	12.2	285	57
SMF4746A	46A	17.1	18	18.9	14	20	750	0.25	5	13.7	250	50
SMF4747A	47A	19	20	21	12.5	22	750	0.25	5	15.2	225	45
SMF4748A	48A	20.9	22	23.1	11.5	23	750	0.25	5	16.7	205	41
SMF4749A	49A	22.8	24	25.2	10.5	25	750	0.25	5	18.2	190	38
SMF4750A	50A	25.65	27	28.35	9.5	35	750	0.25	5	20.6	170	34
SMF4751A	51A	28.5	30	31.5	8.5	40	1000	0.25	5	22.8	150	30
SMF4752A	52A	31.35	33	34.65	7.5	45	1000	0.25	5	25.1	135	27
SMF4753A	53A	34.2	36	37.8	7	50	1000	0.25	5	27.4	125	25
SMF4754A	54A	37.05	39	40.95	6.5	60	1000	0.25	5	29.7	115	23
SMF4755A	55A	40.85	43	45.15	6	70	1500	0.25	5	32.7	110	22
SMF4756A	56A	44.65	47	49.35	5.5	80	1500	0.25	5	35.8	95	19
SMF4757A	57A	48.45	51	53.55	5	95	1500	0.25	5	38.8	90	18
SMF4758A	58A	53.2	56	58.8	4.5	110	2000	0.25	5	42.6	80	16
SMF4759A	59A	58.9	62	65.1	4	125	2000	0.25	5	47.1	70	14
SMF4760A	60A	64.6	68	71.4	3.7	150	2000	0.25	5	51.7	65	13
SMF4761A	61A	71.25	75	78.75	3.3	175	2000	0.25	5	56	60	12
SMF4762A	62A	77.9	82	86.1	3	200	3000	0.25	5	62.2	55	11
SMF4763A	63A	86.45	91	95.55	2.8	250	3000	0.25	5	69.2	50	10
SMF4764A	64A	95	100	105	2.5	350	3000	0.25	5	76	45	9

Notes:

(1) Nominal Zener voltage Range：95% Typ.Vz (1)at Izt ----105% Typ.Vz (1)at Izt

(2) Surge current is a non-repetitive, 8.3ms pulse width square wav e or equivalent sine-wave superimposed on IZT per JEDEC method

The curve above is for reference only.

Characteristics (Typical)

FIG1: Maximum Continuous Power Dissipation

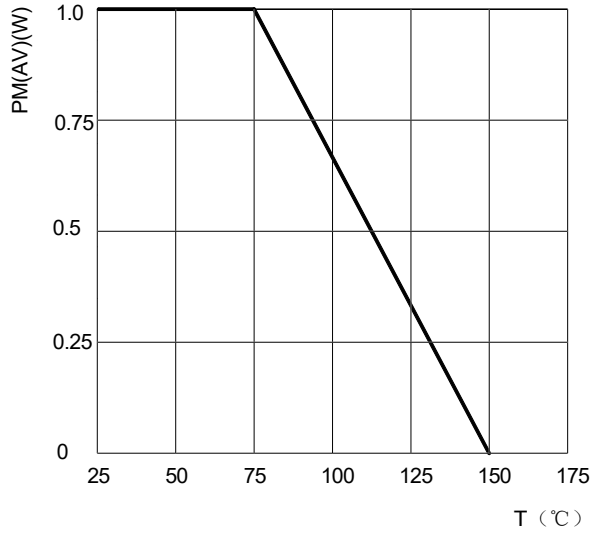


FIG2:Typical Zener Impedance

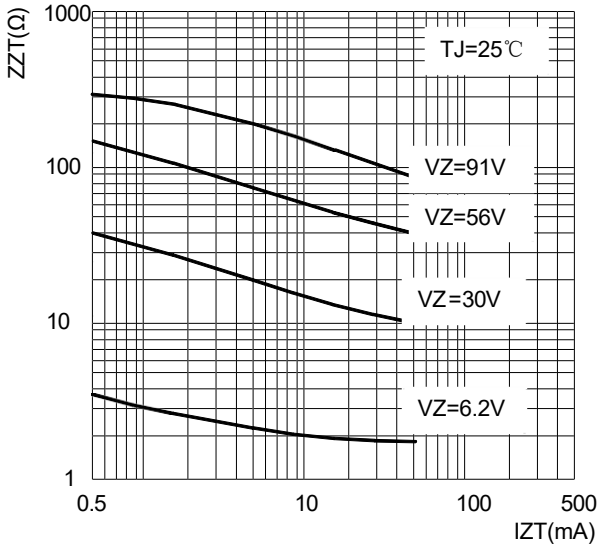


FIG3: Typical Temperature Coefficients

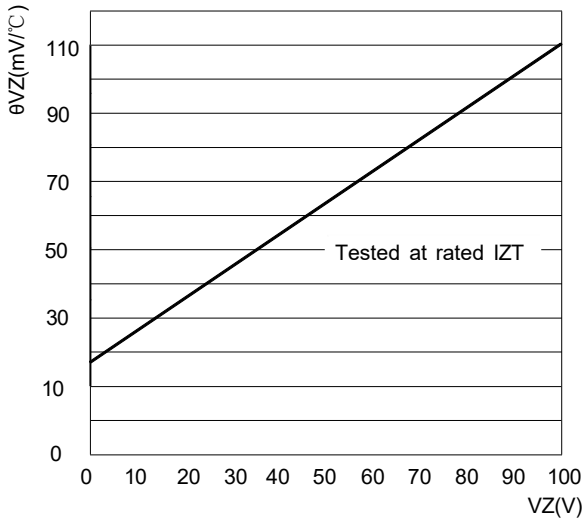


FIG4:Typical Instantaneous Forward Characteristics for SMA4763A

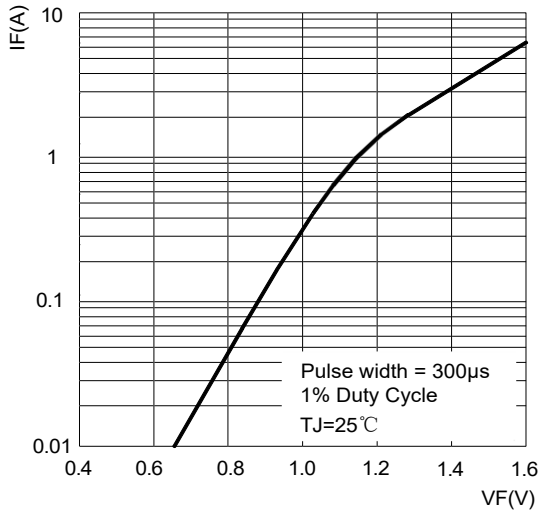
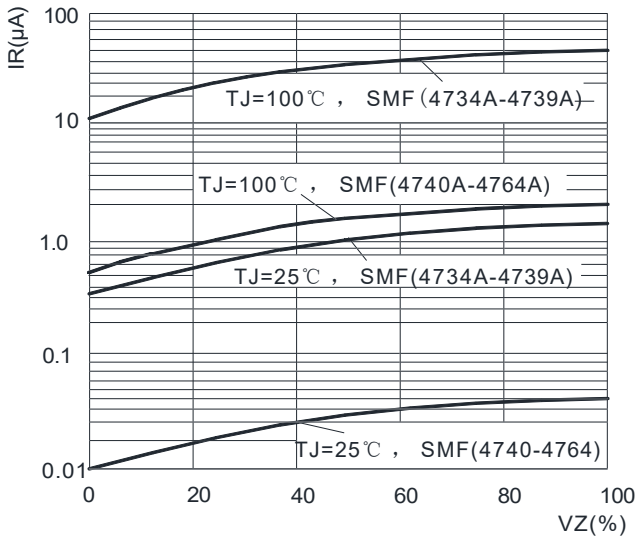


FIG5:Typical Reverse Characteristics



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