

Description

SMF47 Series Zener Diodes are excellent voltage stabilization devices.

The Series is designed specifically for Voltage stabilization、Voltage regulation, and so on.

Features

- For surface mounted applications
- Low Zener impedance
- Low regulation factor
- Epoxy resin package
- RoHS Compliant

Mechanical Characteristics

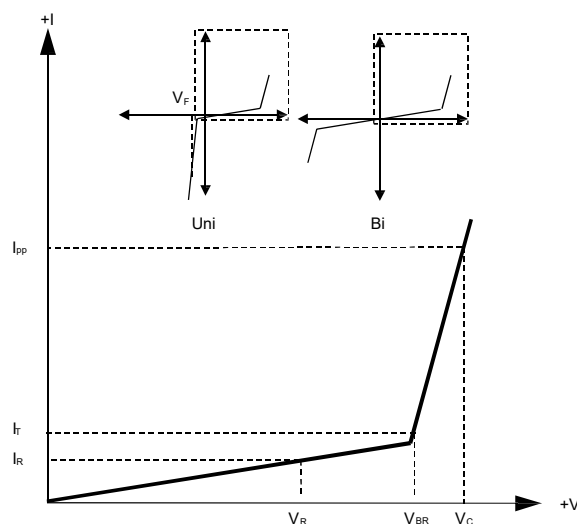
- Package: SOD-123FL plastic package.
- Lead Finish: Matte Tin
- Case Material: Epoxy Molding Compound.
- UL Flammability Classification Rating 94V-0
- Moisture Sensitivity: Level 1 per J-STD-020

Applications

- Voltage stabilization
- Voltage regulation

Electrical Parameters

Parameter	Definition
C_J	Junction Capacitance - typical capacitance measured with 0V or V_R bias
I_{PP}	Peak Pulse Current - maximum rated peak impulse current
V_C	Clamping Voltage - Peak voltage measured across the suppressor at a specified I_{ppm} (peak impulse current)
V_{BR}	Breakdown Voltage - Maximum voltage that flows though the TVS at a specified test current (I_T)
I_R	Leakage Current - maximum peak off-state current measured at V_R
V_R	Peak Off-state Voltage - maximum voltage that can be applied while maintaining off state



Absolute Maximum Ratings (TA=25°C unless otherwise noted)

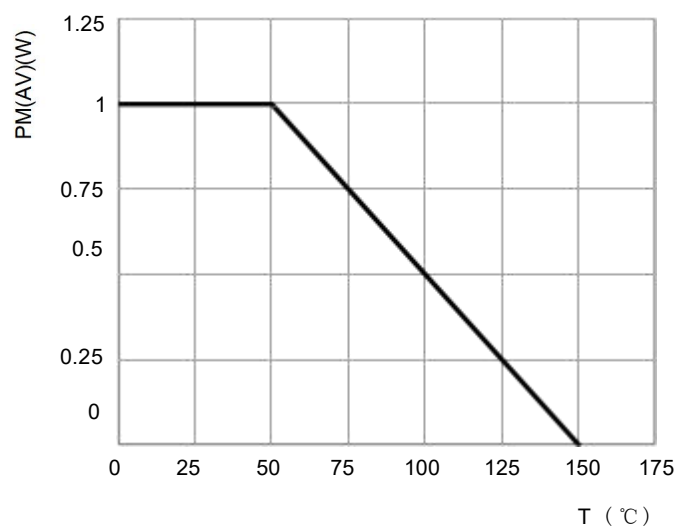
Parameter	Symbol	Value	Units	Remarks
Power Dissipation @ T _L =75°C	P _D	1	W	
Maximum Forward Voltage @ I _F =200mA	V _F	1.2	V	
Typical Thermal Resistance Junction to Lead	R _{θJL}	30	°C/W	
Typical Thermal Resistance Junction to Ambient	R _{θJA}	220	°C/W	
Operating Temperature Range	T _J	-55 to 150	°C	
Storage Temperature Range	T _{STG}	-55 to 150	°C	

Electrical Characteristics (TA=25. °C unless otherwise)

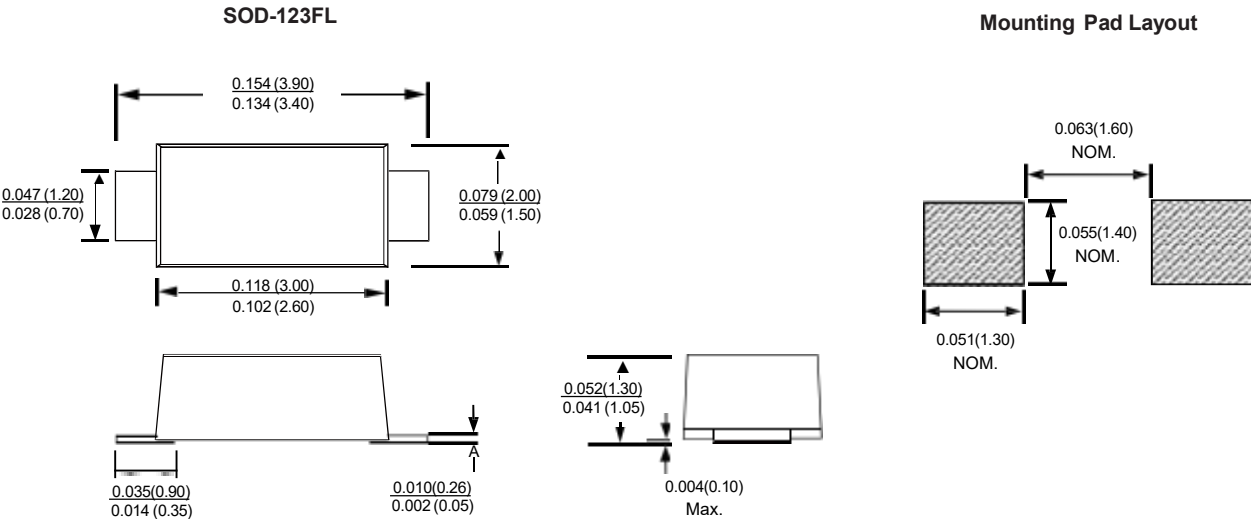
Part Number	Marking Code	Zener Voltage			Test Current	Maximum Zener Impedance			Maximum Reverse Current		Maximum Zener Current
		V _Z @ I _{ZT}			I _{ZT}	Z _{ZT} @ I _{ZT}	Z _{ZK} @ I _{ZK}		I _R @ V _R		I _{ZM}
		Nom (V)	Min (V)	Max (V)	mA	Ω	Ω	mA	μA	V	mA
SMF4728A	728A	3.3	3.14	3.47	76	10	400	1	1	1	274
SMF4729A	729A	3.6	3.42	3.78	69	10	400	1	1	1	251
SMF4730A	730A	3.9	3.71	4.1	64	9	400	1	1	1	232
SMF4731A	731A	4.3	4.09	4.52	58	9	400	1	1	1	210
SMF4732A	732A	4.7	4.47	4.94	53	8	500	1	1	1	192
SMF4733A	733A	5.1	4.8	5.4	49	7	550	1	10	1	178
SMF4734A	734A	5.6	5.3	5.9	45	5	600	1	10	2	162
SMF4735A	735A	6.2	5.8	6.6	41	2	700	1	10	3	146
SMF4736A	736A	6.8	6.4	7.2	37	3.5	700	1	10	4	133
SMF4737A	737A	7.5	7.1	7.9	34	4	700	0.5	10	5	121
SMF4738A	738A	8.2	7.7	8.7	31	4.5	700	0.5	10	6	110
SMF4739A	739A	9.1	8.6	9.6	28	5	700	0.5	10	7	100
SMF4740A	740A	10	9.5	10.5	25	7	700	0.25	10	7.6	91
SMF4741A	741A	11	10.4	11.6	23	8	700	0.25	5	8.4	83
SMF4742A	742A	12	11.4	12.6	21	9	700	0.25	5	9.1	76
SMF4743A	743A	13	12.3	13.7	19	10	700	0.25	5	9.9	69
SMF4744A	744A	15	14.2	15.8	17	14	700	0.25	5	11.4	61
SMF4745A	745A	16	15.2	16.8	15.5	16	700	0.25	5	12.2	57
SMF4746A	746A	18	17.1	18.9	14	20	750	0.25	5	13.7	50
SMF4747A	747A	20	19	21	12.5	22	750	0.25	5	15.2	45
SMF4748A	748A	22	20.9	23.1	11.5	23	750	0.25	5	16.7	41
SMF4749A	749A	24	22.8	25.2	10.5	25	750	0.25	5	18.2	38
SMF4750A	750A	27	25.6	28.4	9.5	35	750	0.25	5	20.6	34
SMF4751A	751A	30	28.5	31.5	8.5	40	1000	0.25	5	22.8	30
SMF4752A	752A	33	31.3	34.7	7.5	45	1000	0.25	5	25.1	27
SMF4753A	753A	36	34.2	37.8	7	50	1000	0.25	5	27.4	25
SMF4754A	754A	39	37	41	6.5	60	1000	0.25	5	29.7	23
SMF4755A	755A	43	40.8	45.2	6	70	1500	0.25	5	32.7	22
SMF4756A	756A	47	44.6	49.4	5.5	80	1500	0.25	5	35.8	19
SMF4757A	757A	51	48.4	53.6	5	95	1500	0.25	5	38.8	18
SMF4758A	758A	56	53.2	58.8	4.5	110	2000	0.25	5	42.6	16
SMF4759A	759A	62	58.9	65.1	4	125	2000	0.25	5	47.1	14
SMF4760A	760A	68	64.6	71.4	3.7	150	2000	0.25	5	51.7	13
SMF4761A	761A	75	71.2	78.8	3.3	175	2000	0.25	5	56	12
SMF4762A	762A	82	77.9	86.1	3	200	3000	0.25	5	62.2	11
SMF4763A	763A	91	86.4	95.6	2.8	250	3000	0.25	5	69.2	10
SMF4764A	764A	100	95	105	2.5	350	3000	0.25	5	76	9

Rating And Characteristic Curves (TA=25. C unless otherwise noted)

FIG1: Maximum Continuous Power Dissipation



Package Outline Dimensions in inches (millimeters)



Part Marking System



Summary of Packaging Options

Package	Packing Description	Packing Quantity
SOD-123FL	Tape/Reel, 7" reel	3000
	Tape/Reel, 13" reel	10000