SAMYANG ELECTRONICS

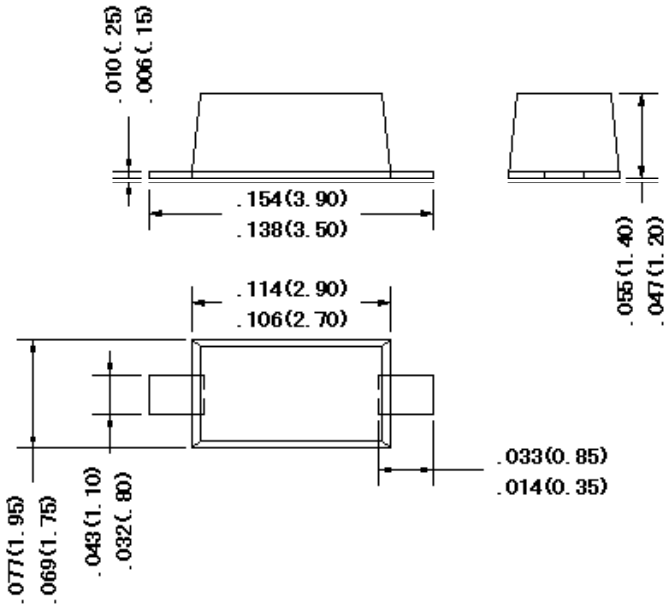
SMF47xxA SERIES

Surface Mount SILICON ZENER DIODES
Zener Voltage 3.3 ~ 330 V
1.0 Watt Power Dissipation

Features

- Glass passivated chip
- Built-in strain relief
- Low inductance
- High peak reverse power dissipatio.
- Low reverse leakage
- For use in stabilizing and clipping with high power rating
- RoHS compliant

SOD123FL



Unit: inch(mm)

Mechanical Data

- Case: SOD123FL Molded plastic
- Lead: Solderable per MIL-STD-750, method 2026
- Epoxy: UL 94V-0 rate flame retardant
- Polarity: Color band denotes cathode end
- Mounting position: Any

Parameter	Symbols	Value	Unit
DC Power dissipation at TL = 50 °C	P_D	1.0	W
Maximum forward voltage at if=200mA	V_F	1.2	V
Junction temperature range	T_J, T_{STG}	-55 to +150	℃
Storage temperature range	T_J, T_{STG}	-55 to +150	℃

Note : (1) T_L =Lead temperature at 3/8'' (9.5mm)from body

Part Number	Device Marking Code	Nominal Zener Voltage @			I_{ZT}(mA)	Maximum Zener Impedance			Maximum Reverse Leakage Current		Maximum DC Zener Current
		$V_{Z\ AVE.}$(V)	$V_{Z\ MIN.}$(V)	$V_{Z\ MAX.}$(V)		$Z_{ZT\ MAX.}$(Ω) @I_{ZT}	$Z_{ZK\ MAX.}$(Ω) @I_{ZK}	I_{ZK}(mA)	I_R(uA)@V_R	V_R(V)	I_{ZM} (mA)
SMF4728A	28A	3.3	3.14	3.47	76.0	10.0	400.0	1.00	100.0	1.0	274.0
SMF4729A	29A	3.6	3.42	3.78	69.0	10.0	400.0	1.00	100.0	1.0	251.0
SMF4730A	30A	3.9	3.71	4.10	64.0	9.0	400.0	1.00	50.0	1.0	232.0
SMF4731A	31A	4.3	4.09	4.52	58.0	9.0	400.0	1.00	10.0	1.0	210.0
SMF4732A	32A	4.7	4.47	4.94	53.0	8.0	500.0	1.00	10.0	1.0	192.0
SMF4733A	33A	5.1	4.85	5.36	49.0	7.0	550.0	1.00	10.0	1.0	177.0
SMF4734A	34A	5.6	5.32	5.88	45.0	5.0	600.0	1.00	10.0	2.0	161.0
SMF4735A	35A	6.2	5.89	6.51	41.0	2.0	700.0	1.00	10.0	3.0	146.0
SMF4736A	36A	6.8	6.46	7.14	37.0	3.5	700.0	1.00	10.0	4.0	133.0
SMF4737A	37A	7.5	7.13	7.88	34.0	4.0	700.0	0.50	10.0	5.0	121.0
SMF4738A	38A	8.2	7.79	8.61	31.0	4.5	700.0	0.50	10.0	6.0	110.0
SMF4739A	39A	9.1	8.65	9.56	28.0	5.0	700.0	0.50	10.0	7.0	100.0
SMF4740A	40A	10.0	9.50	10.50	25.0	7.0	700.0	0.25	10.0	7.6	91.0
SMF4741A	41A	11.0	10.45	11.55	23.0	8.0	700.0	0.25	0.5	8.4	83.0
SMF4742A	42A	12.0	11.40	12.60	21.0	9.0	700.0	0.25	0.5	9.1	76.0
SMF4743A	43A	13.0	12.35	13.65	19.0	10.0	700.0	0.25	0.5	9.9	69.0
SMF4744A	44A	15.0	14.25	15.75	17.0	14.0	700.0	0.25	0.5	11.4	61.0
SMF4745A	45A	16.0	15.20	16.80	15.5	16.0	700.0	0.25	0.5	12.2	57.0
SMF4746A	46A	18.0	17.10	18.90	14.0	20.0	750.0	0.25	0.5	13.7	50.0
SMF4747A	47A	20.0	19.00	21.00	12.5	22.0	750.0	0.25	0.5	15.2	45.0
SMF4748A	48A	22.0	20.90	23.10	11.5	23.0	750.0	0.25	0.5	16.7	41.0
SMF4749A	49A	24.0	22.80	25.20	10.5	25.0	750.0	0.25	0.5	18.2	38.0
SMF4750A	50A	27.0	25.65	28.35	9.5	35.0	750.0	0.25	0.5	20.6	34.0
SMF4751A	51A	30.0	28.50	31.50	8.5	40.0	1000.0	0.25	0.5	22.8	30.0
SMF4752A	52A	33.0	31.35	34.65	7.5	45.0	1000.0	0.25	0.5	25.1	27.0
SMF4753A	53A	36.0	34.20	37.80	7.0	50.0	1000.0	0.25	0.5	27.4	25.0
SMF4754A	54A	39.0	37.05	40.95	6.5	60.0	1000.0	0.25	0.5	29.7	23.0
SMF4755A	55A	43.0	40.85	45.15	6.0	70.0	1500.0	0.25	0.5	32.7	22.0
SMF4756A	56A	47.0	44.65	49.35	5.5	80.0	1500.0	0.25	0.5	35.8	19.0
SMF4757A	57A	51.0	48.45	53.55	5.0	95.0	1500.0	0.25	0.5	38.8	18.0
SMF4758A	58A	56.0	53.20	58.80	4.5	110.0	2000.0	0.25	0.5	42.6	16.0
SMF4759A	59A	62.0	58.90	65.10	4.0	125.0	2000.0	0.25	0.5	47.1	14.0
SMF4760A	60A	68.0	64.60	71.40	3.7	150.0	2000.0	0.25	0.5	51.7	13.0
SMF4761A	61A	75.0	71.25	78.75	3.3	175.0	2000.0	0.25	0.5	56.0	12.0
SMF4762A	62A	82.0	77.90	86.10	3.0	200.0	3000.0	0.25	0.5	62.2	11.0
SMF4763A	63A	91.0	86.45	95.55	2.8	250.0	3000.0	0.25	0.5	69.2	10.0
SMF4764A	64A	100.0	95.00	105.00	2.5	350.0	3000.0	0.25	0.5	76.0	9.0
SZF1110A	11Z	110.0	104.50	115.50	2.3	450.0	4000.0	0.25	0.5	83.6	8.6
SZF1120A	12Z	120.0	114.00	126.00	2.0	550.0	4500.0	0.25	0.5	91.2	7.8
SZF1130A	13Z	130.0	123.50	136.50	1.9	700.0	5000.0	0.25	0.5	98.8	7.0
SZF1150A	15Z	150.0	142.50	157.50	1.7	1000.0	6000.0	0.25	0.5	114.0	6.4
SZF1160A	16Z	160.0	152.00	168.00	1.6	1100.0	6500.0	0.25	0.5	121.6	5.8
SZF1180A	18Z	180.0	171.00	189.00	1.4	1200.0	7000.0	0.25	0.5	136.8	5.2
SZF1200A	20Z	200.0	190.00	210.00	1.2	1900.0	9990.0	0.25	0.5	152.0	4.7
SZF1220A	22Z	220.0	209.00	231.00	1.0	1600.0	8000.0	0.25	0.5	167.2	4.0
SZF1240A	24Z	240.0	228.00	252.00	0.9	1800.0	8500.0	0.25	0.5	182.4	3.8
SZF1250A	25Z	250.0	237.50	262.50	0.9	2000.0	9000.0	0.25	0.5	190.0	3.6
SZF1270A	27Z	270.0	256.50	283.50	0.8	2100.0	9000.0	0.25	0.5	205.0	3.3
SZF1300A	30Z	300.0	285.00	315.00	0.8	2300.0	9500.0	0.25	0.5	228.0	3.0
SZF1330A	33Z	330.0	313.50	346.50	0.7	2500.0	9500.0	0.25	0.5	250.2	2.7

Ratings and Characteristics Curves (Ta=25℃ unless otherwise noted)

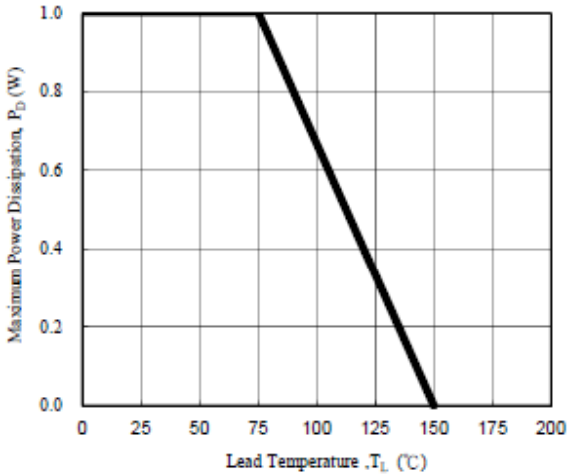


Fig. 1 - Power Temperature Derating Curve

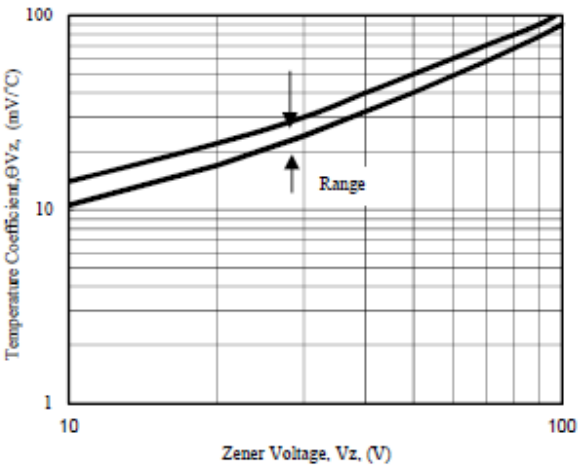


Fig. 2 - Temperature Coefficients v.s. Zener Voltage

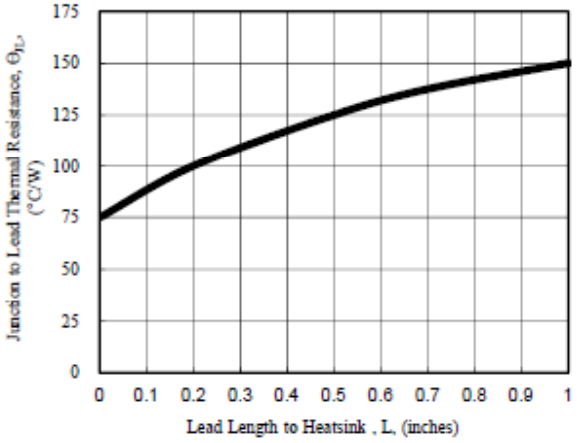
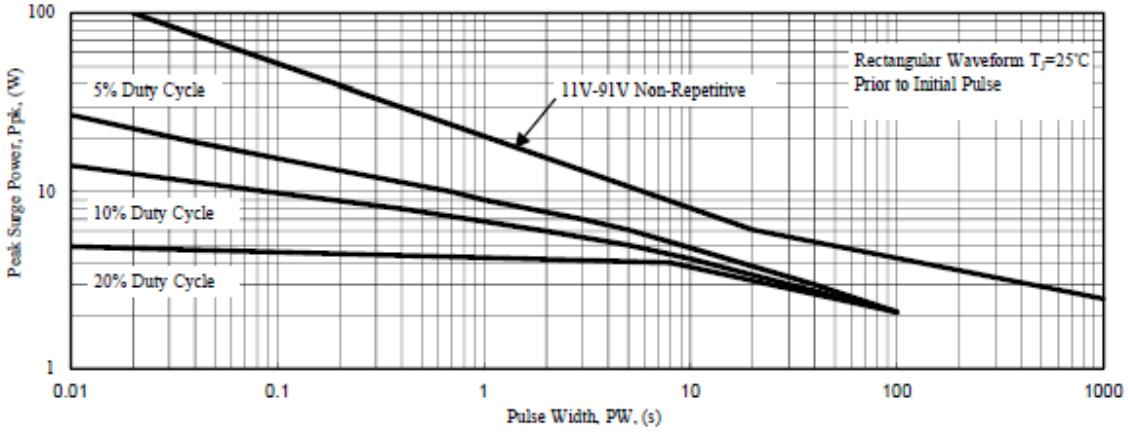


Fig. 3 - Typical Thermal Resistance v.s. Lead Length



Fg. 4 - Maximum Surge Power