

## Features

- $P_{tot}$  1.0W
- $V_Z$  3.3V- 300V
- the marking bar indicates the cathode

## Applications

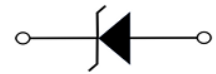
- Stabilizing Voltage

## Marking

- SMF47XXA  
XX:From 28 To 64( $V_Z < 100V$ )
- SMF1XXXXA  
XXX:From 110 To 300 ( $V_Z > 100V$ )



SOD-123FL



Uni-direction



Halogen-Free

## Limiting Values(Absolute Maximum Rating)

Symbol	Parameter	Conditions	Value	Unit
$P_d$	Power dissipation	$T_L = 75^\circ C$	1.0	W
$I_Z$	Zener current		$P_V / V_Z$	mA
$T_J, T_{stg}$	Operation Junction and Storage Temperature Range		-55~+150	$^\circ C$

## Electrical Characteristics ( $T_a = 25^\circ C$ unless otherwise specified)

Symbol	Parameter	Conditions	Value	Unit
$R_{\theta JA}$	Thermal resistance	Between junction to ambient	170	$^\circ C/W$
$R_{\theta JL}$		Between junction to lead	26	$^\circ C/W$
$V_F$	Forward voltage	$I_F = 200mA$	1.5	V

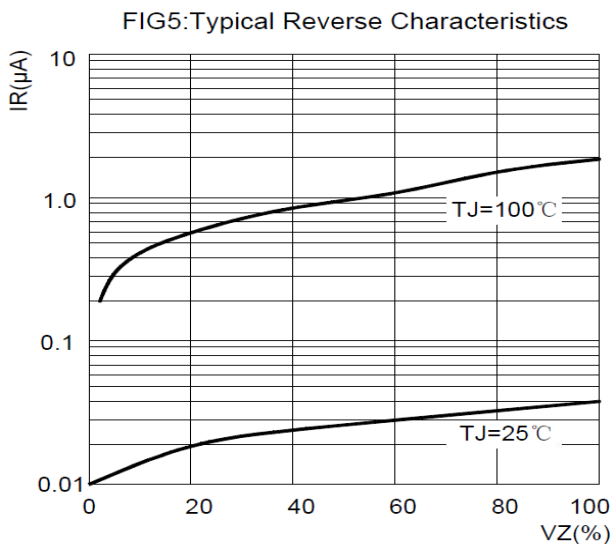
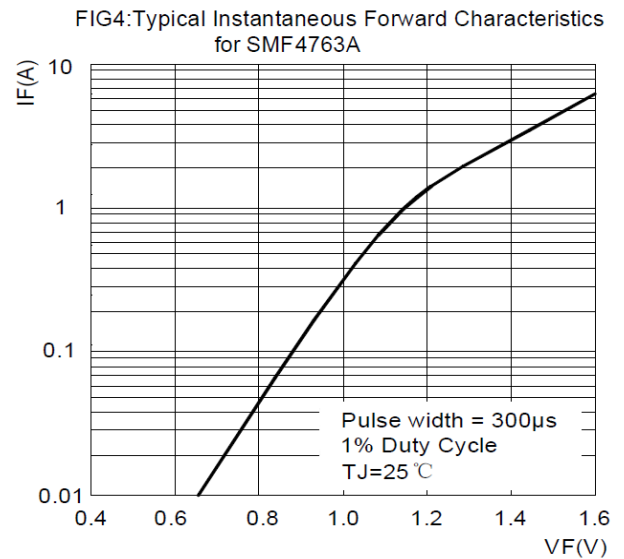
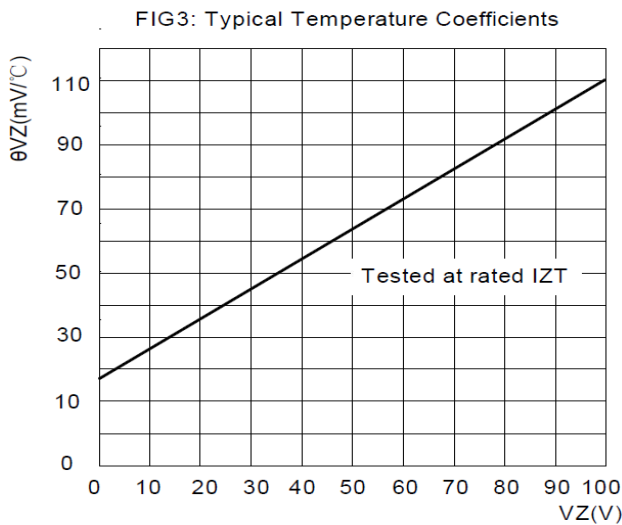
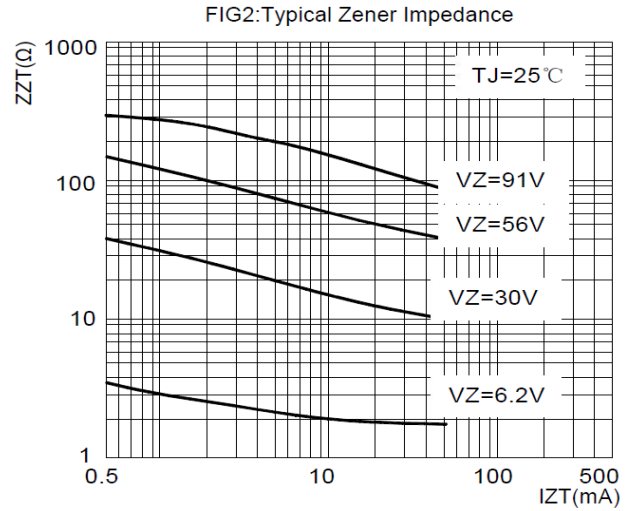
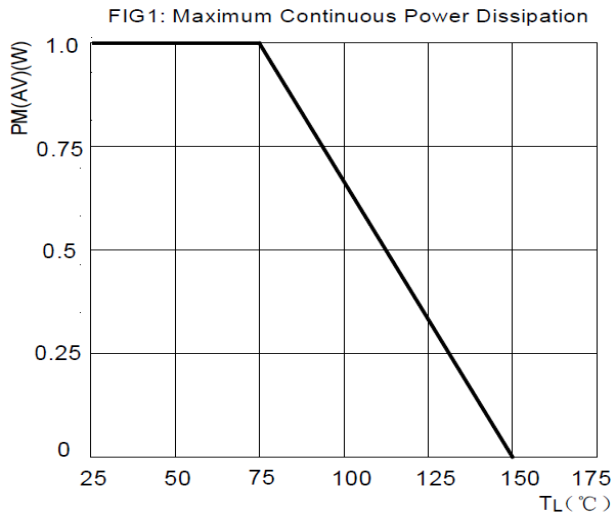
Notes :

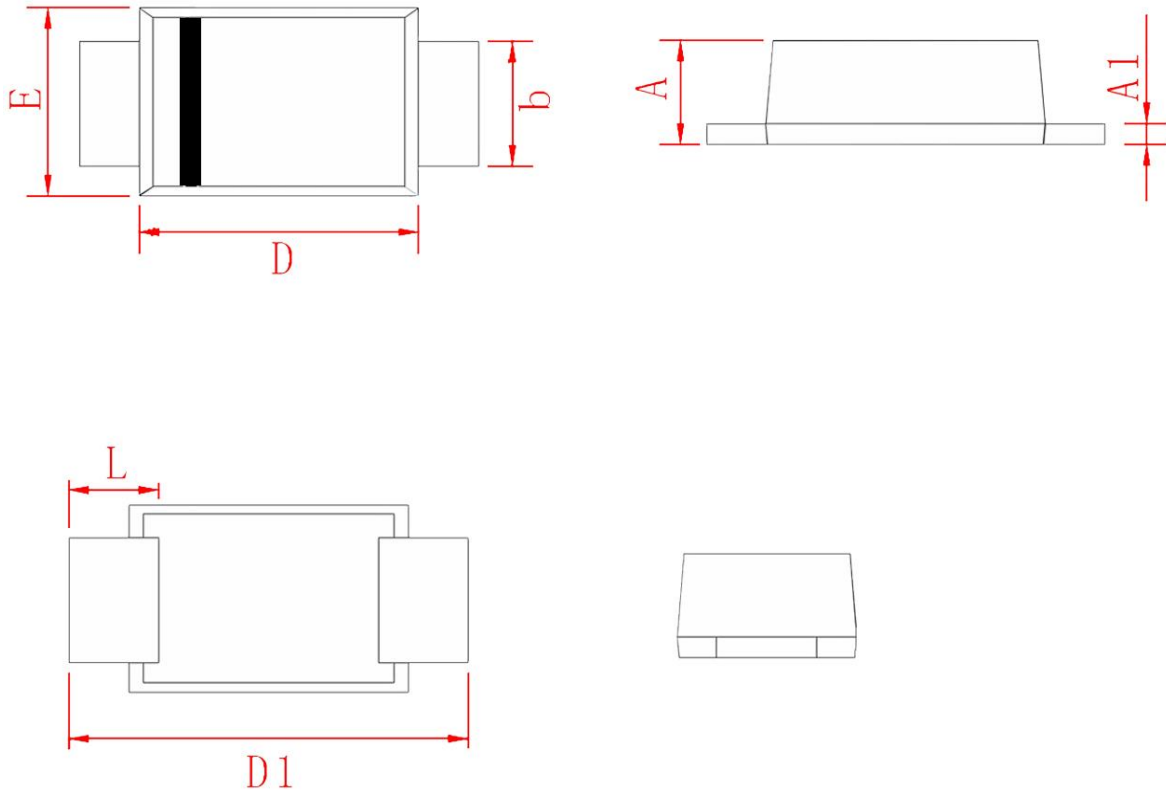
- (1) The type number listed have a standard tolerance on the nominal zener voltage of  $\pm 5\%$  method.
- (2) The reverse surge current is a non-repetitive, 8.3ms pulse width square wave or equivalent sine-wave superimposed on IZT per method.

**Electrical Characteristics  $T_a=25^\circ\text{C}$  unless otherwise specified**

Typ Number	Nominal Zener Voltage				Maximum Zener Impedance			Maximum DC Zener Current		Maximum DC Zener	Maximum Surge Current
	AVE $V_Z$ @ $I_{ZT}$	MIN $V_Z$ @ $I_{ZT}$	MAX $V_Z$ @ $I_{ZT}$	$I_{ZT}$	$Z_{ZT}$ @ $I_{ZT}$	$Z_{ZK}$ @ $I_{ZK}$	$I_{ZK}$	$I_R$ @ $V_R$		$I_{ZM}$	$I_{RM}$
	(V)	(V)	(V)	(mA)	( $\Omega$ )	( $\Omega$ )	(mA)	( $\mu\text{A}$ )	(V)	(mA)	(mApk)
SMF4728A	3.3	3.140	3.470	76	10.0	400	1.0	100	1	274	1370
SMF4729A	3.6	3.42	3.78	69	10.0	400	1.0	100	1	251	1255
SMF4730A	3.9	3.71	4.10	64	9.0	400	1.0	50	1	232	1160
SMF4731A	4.3	4.09	4.52	58	9.0	400	1.0	10	1	310	960
SMF4732A	4.7	4.47	4.94	53	8.0	500	1.0	10	1	192	960
SMF4733A	5.1	4.85	5.36	49	7.0	550	1.0	10	1	177	885
SMF4734A	5.6	5.32	5.88	45	5.0	600	1.0	10	2	161	805
SMF4735A	6.2	5.89	6.51	41	2.0	700	1.0	10	3	146	730
SMF4736A	6.8	6.46	7.14	37	3.5	700	1.0	5	4	133	660
SMF4737A	7.5	7.13	7.88	34	4.0	700	0.5	5	5	121	605
SMF4738A	8.2	7.79	8.61	31	4.5	700	0.5	5	6	110	550
SMF4739A	9.1	8.65	9.56	28	5.0	700	0.5	0.5	7	100	500
SMF4740A	10.0	9.50	10.50	25	7.0	700	0.25	0.5	7.6	91	454
SMF4741A	11.0	10.45	11.55	23	8.0	700	0.25	0.1	8.4	83	414
SMF4742A	12.0	11.40	12.60	21	9.0	700	0.25	0.1	9.1	76	380
SMF4743A	13.0	12.35	13.65	19	10.0	700	0.25	0.1	9.9	69	344
SMF4744A	15.0	14.25	15.75	17	14.0	700	0.25	0.1	11.4	61	305
SMF4745A	16.0	15.20	16.80	15.5	16.0	700	0.25	0.1	12.2	57	285
SMF4746A	18.0	17.10	18.90	14.0	20.0	750	0.25	0.1	13.7	50	250
SMF4747A	20.0	19.00	21.00	12.5	22.0	750	0.25	0.1	15.2	45	225
SMF4748A	22.0	20.90	23.10	11.5	23.0	750	0.25	0.1	16.7	41	205
SMF4749A	24.0	22.80	25.20	10.5	25.0	750	0.25	0.1	18.2	38	190
SMF4750A	27.0	25.65	28.35	9.5	35.0	750	0.25	0.1	20.6	34	170
SMF4751A	30.0	28.50	31.50	8.5	40.0	1000	0.25	0.1	22.8	30	150
SMF4752A	33.0	31.35	34.65	7.5	45.0	1000	0.25	0.1	25.1	27	135
SMF4753A	36.0	34.20	37.80	7.0	50.0	1000	0.25	0.1	27.4	25	125
SMF4754A	39.0	37.05	40.95	6.5	60.0	1000	0.25	0.1	29.7	23	115
SMF4755A	43.0	40.85	45.15	6.0	70.0	1500	0.25	0.1	32.7	22	110
SMF4756A	47.0	44.65	49.35	5.5	80.0	1500	0.25	0.1	35.8	19	95
SMF4757A	51.0	48.45	53.55	5.0	95.0	1500	0.25	0.1	38.8	18	90
SMF4758A	56.0	53.20	58.80	4.5	110.0	2000	0.25	0.1	42.6	16	80
SMF4759A	62.0	58.90	65.10	4.0	125.0	2000	0.25	0.1	47.1	14	70
SMF4760A	68.0	64.60	71.40	3.7	150.0	2000	0.25	0.1	57.1	13	65
SMF4761A	75.0	71.25	78.75	3.3	175.0	2000	0.25	0.1	56.0	12	60
SMF4762A	82.0	77.90	86.10	3.0	200.0	3000	0.25	0.1	62.2	11	55
SMF4763A	91.0	86.45	95.55	2.8	250.0	3000	0.25	0.1	69.2	10	50
SMF4764A	100.0	95.00	105.00	2.5	350.0	3000	0.25	0.1	76.0	9	45
SMF1110A	110.0	104.50	115.50	2.3	450.0	4000	0.25	0.1	83.6	8.6	40
SMF1120A	120.0	114.00	126.00	2.0	550.0	4500	0.25	0.1	91.2	7.8	37
SMF1130A	130.0	123.50	136.50	1.9	700.0	5000	0.25	0.1	98.8	7.0	34
SMF1150A	150.0	142.50	157.50	1.7	1000.0	6000	0.25	0.1	114.0	6.4	30
SMF1160A	160.0	152.00	168.00	1.6	1100.0	6500	0.25	0.1	121.6	5.8	28
SMF1180A	180.0	171.00	189.00	1.4	1200.0	7000	0.25	0.1	136.8	5.2	25
SMF1200A	200.0	190.00	210.00	1.2	1900.0	9990	0.25	0.1	152.0	4.7	22
SMF1220A	220.0	209.00	231.00	1.0	1600.0	8000	0.25	0.1	167.2	4.0	20
SMF1240A	240.0	228.00	252.00	0.9	100.0	8500	0.25	0.1	182.4	3.8	19
SMF1250A	250.0	237.50	262.50	0.9	2000.0	9000	0.25	0.1	190.0	3.6	18
SMF1270A	270.0	256.50	283.50	0.8	2100.0	9000	0.25	0.1	205.0	3.3	16
SMF1300A	300.0	285.00	315.00	0.8	2300.0	9500	0.25	0.1	228.0	3.0	15
SMF1330A	330.0	313.50	346.50	0.7	2500.0	9500	0.25	0.1	250.2	2.7	13

**Typical Characteristics**



**SOD-123FL Package information**


Symbol	Dimensions in Millimeters(mm)		Dimensions In Inches	
	Min	Max	Min	Max
A	1.200	1.400	0.047	0.055
A1	0.120	0.250	0.005	0.010
b	0.850	1.150	0.033	0.045
D	2.650	2.950	0.104	0.116
D1	3.550	3.850	0.140	0.152
E	1.700	1.900	0.067	0.075
L	0.500	0.900	0.020	0.035