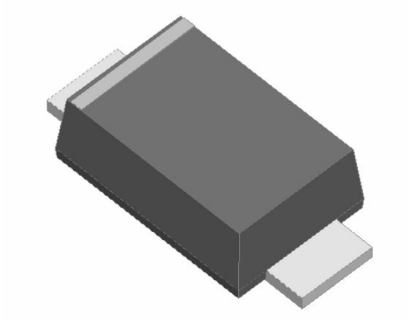
1.0W SURFACE MOUNT POWER ZENER DIODE

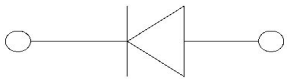
FEATURES

- Glass passivated chip
- Low leakage
- Built-in strain relief
- Low inductance
- High peak reverse power dissipation
- Lead (Pb)-free component
- For use in stabilizing and clipping circuits with high power



MECHANICAL DATA

- Case: Molded plastic
- Epoxy: UL 94V-0 rate flame retardant
- Lead: Axial leads, solderable per MIL-STD-202, method 208 guranteed
- Polarity: Color band denotes cathode end
- Mounting position: Any



RATINGS AND ELECTRICAL CHARACTERISTICS

Rating at 25℃ ambient temperature unless otherwise specified.

Parameter	Symbol	Value	UNIT
DC Power Dissipation at TL = 50 °C (Note1)	P_D	1.0	Watts
Peak pulse current wih a 10/1000μs waveform	V_F	1.2	Volts
Maximum Thermal Resistance Junction to Ambient Air (Note2)	$R_{\Theta JA}$	170.0	K/W
Junction Temperature Range	TJ	- 55 to + 175	°C
Storage Temperature Range	T_{STG}	- 55 to + 175	°C

Note:

(1) TL = Lead temperature at 3/8 " (9.5mm) from body.

(2) Valid provided that leads are kept at ambient temperature at a distance of 10 mm from case.

TYPE	V_Z@I_{ZT}			I_{ZT}	Maximum Zener Impedance			Maximum Leakage Current		Marking Code
					Z_{ZT}@I_{ZT}	Z_{ZK}@I_{ZK}	I_{ZK}	I_R@V_R		
	Nom.V	Min.V	Max.V	mA	Ω	Ω	mA	μA	V	
1.0 Watt ZENER										
SMF4728A	3.3	3.1	3.5	76	10	400	1.0	100	1.0	28A
SMF4729A	3.6	3.4	3.8	69	10	400	1.0	100	1.0	29A
SMF4730A	3.9	3.7	4.1	64	9.0	400	1.0	50	1.0	30A
SMF4731A	4.3	4.1	4.5	58	9.0	400	1.0	10	1.0	31A
SMF4732A	4.7	4.5	4.9	53	8.0	500	1.0	10	1.0	32A
SMF4733A	5.1	4.8	5.4	49	7.0	550	1.0	10	1.0	33A
SMF4734A	5.6	5.3	5.9	45	5.0	600	1.0	10	2.0	34A
SMF4735A	6.2	5.9	6.5	41	2.0	700	1.0	10	3.0	35A
SMF4736A	6.8	6.5	7.1	37	3.5	700	1.0	10	4.0	36A
SMF4737A	7.5	7.1	7.9	34	4.0	700	0.5	10	5.0	37A
SMF4738A	8.2	7.8	8.6	31	4.5	700	0.5	10	6.0	38A
SMF4739A	9.1	8.6	9.6	28	5.0	700	0.5	10	7.0	39A
SMF4740A	10.0	9.5	10.5	25	7.0	700	0.25	10	7.6	40A
SMF4741A	11.0	10.5	11.6	23	8.0	700	0.25	5.0	8.4	41A
SMF4742A	12.0	11.4	12.6	21	9.0	700	0.25	5.0	9.1	42A
SMF4743A	13.0	12.4	13.7	19	10	700	0.25	5.0	9.9	43A
SMF4744A	15.0	14.3	15.8	17	14	700	0.25	5.0	11.4	44A
SMF4745A	16.0	15.2	16.8	15.5	16	700	0.25	5.0	12.2	45A
SMF4746A	18.0	17.1	18.9	14.0	20	750	0.25	5.0	13.7	46A
SMF4747A	20.0	19.0	21.0	12.5	22	750	0.25	5.0	15.2	47A
SMF4748A	22.0	20.9	23.1	11.5	23	750	0.25	5.0	16.7	48A
SMF4749A	24.0	22.8	25.2	10.5	25	750	0.25	5.0	18.2	49A
SMF4750A	27.0	25.7	28.4	9.5	35	750	0.25	5.0	20.6	50A
SMF4751A	30.0	28.5	31.5	8.5	40	1000	0.25	5.0	22.8	51A
SMF4752A	33.0	31.4	34.7	7.5	45	1000	0.25	5.0	25.1	52A
SMF4753A	36.0	34.2	37.8	7.0	50	1000	0.25	5.0	27.4	53A
SMF4754A	39.0	37.1	41.0	6.5	60	1000	0.25	5.0	29.7	54A
SMF4755A	43.0	40.9	45.2	6.0	70	1500	0.25	5.0	32.7	55A
SMF4756A	47.0	44.7	49.4	5.5	80	1500	0.25	5.0	35.8	56A
SMF4757A	51.0	48.5	53.6	5.0	95	1500	0.25	5.0	38.8	57A
SMF4758A	56.0	53.2	58.8	4.5	110	2000	0.25	5.0	42.6	58A
SMF4759A	62.0	58.9	65.1	4.0	125	2000	0.25	5.0	47.1	59A
SMF4760A	68.0	64.6	71.4	3.7	150	2000	0.25	5.0	51.7	60A
SMF4761A	75.0	71.3	78.8	3.3	175	2000	0.25	5.0	56.0	61A
SMF4762A	82.0	77.9	86.1	3.0	200	3000	0.25	5.0	62.2	62A
SMF4763A	91.0	86.5	95.6	2.8	250	3000	0.25	5.0	69.2	63A
SMF4764A	100.0	95.0	105.0	2.5	350	3000	0.25	5.0	76.0	64A

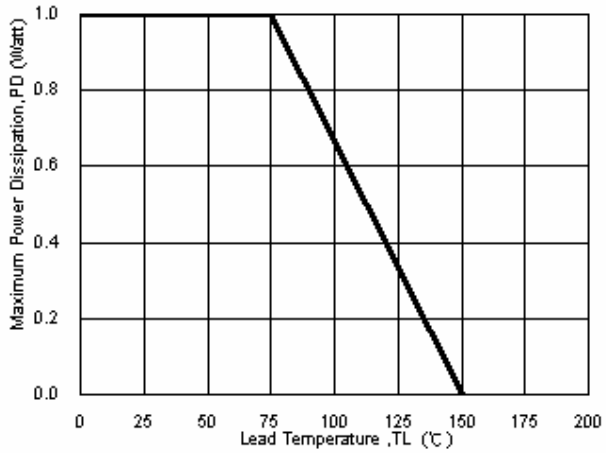


Fig. 1 - Power Temperature Derating Curve

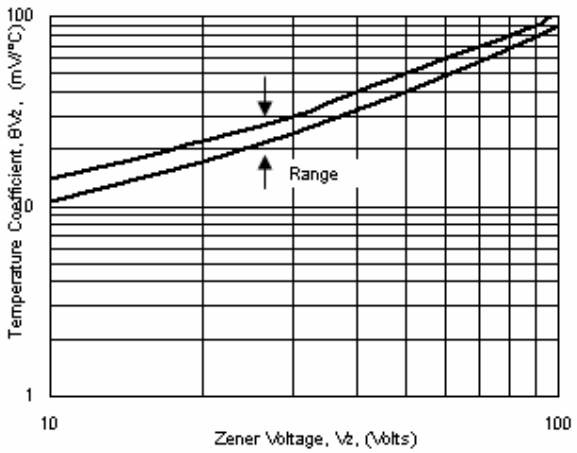


Fig. 2 - Temperature Coefficients v.s. Zener Voltage

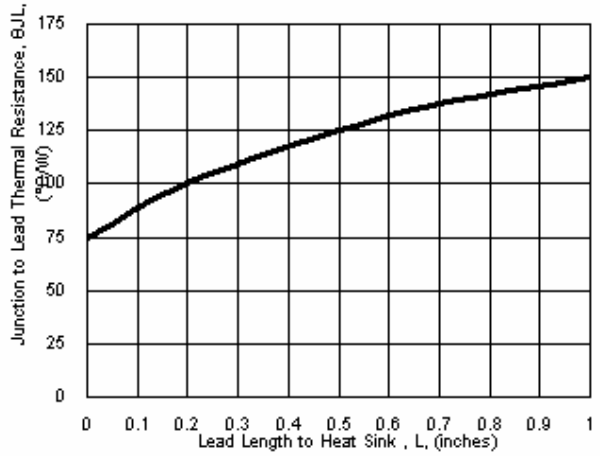


Fig. 3 - Typical Thermal Resistance v.s. Lead Length

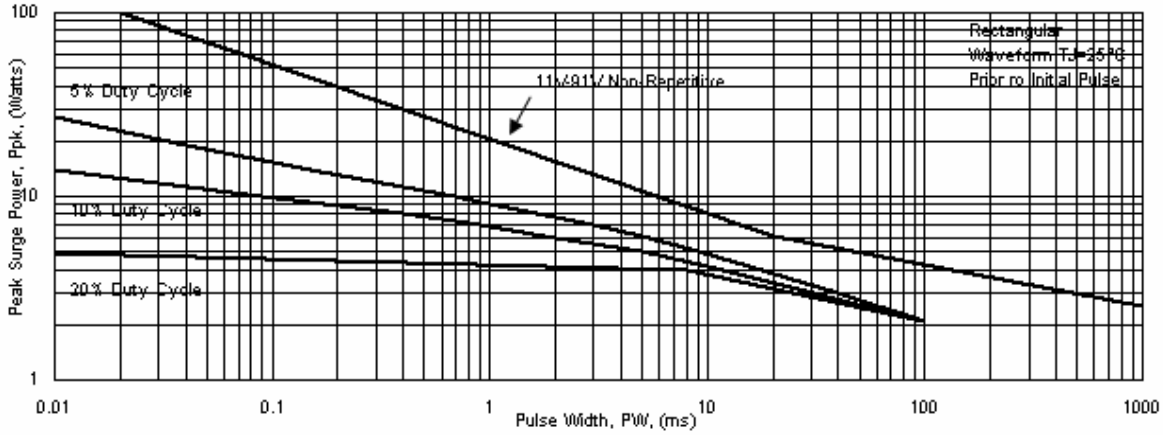
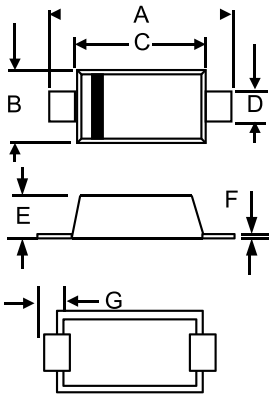


FIG.4 - Maximum Surge Power

■ Ordering Information (Example)

PREFERED	PACKAGE CODE	MINIMUM PACKAGE(pcs)	INNER BOX QUANTITY(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
SMF47 Series	SOD-123	3000	15000	150000	7” reel

■ Outline Dimensions



SOD-123F				
DIM.	INCHES		MM	
	MIN	MAX	MIN	MAX
A	0.138	0.154	3.50	3.90
B	0.069	0.077	1.75	1.95
C	0.102	0.114	2.60	2.90
D	0.031	0.043	0.80	1.10
E	0.037	0.045	0.95	1.15
F	0.004	0.008	0.10	0.20
G	0.028	0.035	0.70	0.90

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