SMA47xxA-SERIES

ZENER DIODES

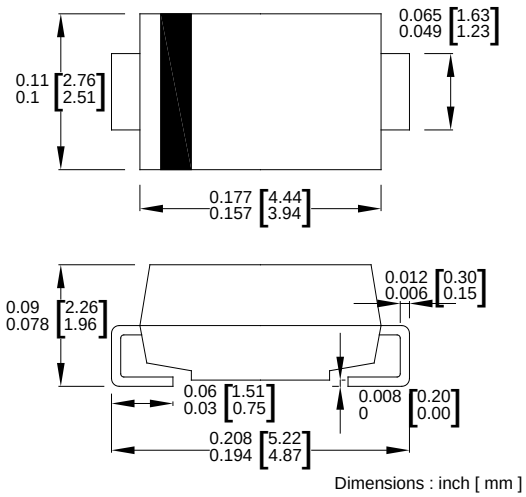
Zener Voltage:3.3-100V

Peak Pulse Power:1W

FEATURES

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

SMA/DO214AC



Dimensions : inch [mm]

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 en
- Mounting position: Any

RATINGS AND ELECTRICAL CHARACTERISTICS

Rating at 25℃ ambient temperature unless otherwise specif

Parameter	Symbol	Value	UNIT
DC Power Dissipation at T_L = 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	$R_{\Theta JA}$	170	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.

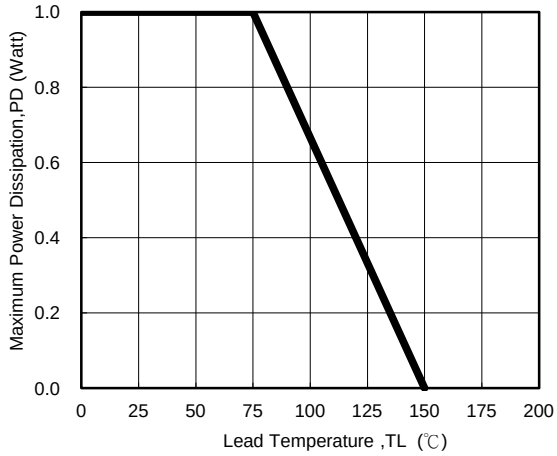


Fig. 1 - Power Temperature Derating Curv

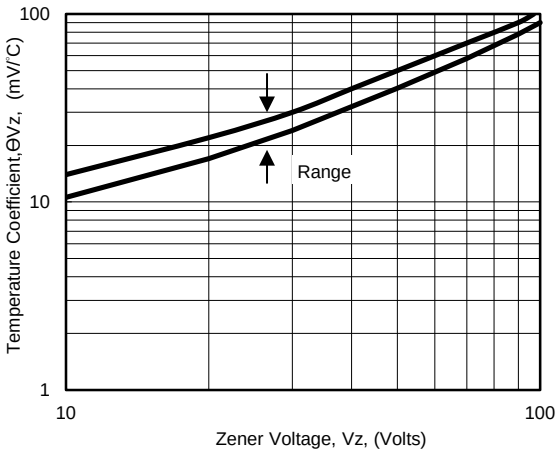


Fig. 2 - Temperature Coefficients v.s. Zener Voltage

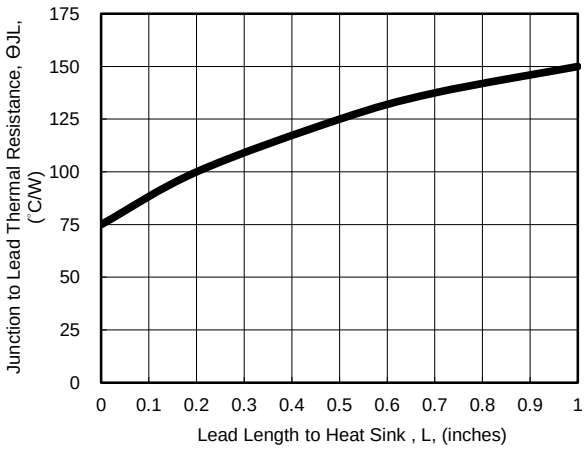


Fig. 3 - Typical Thermal Resistance v.s. Lead Length

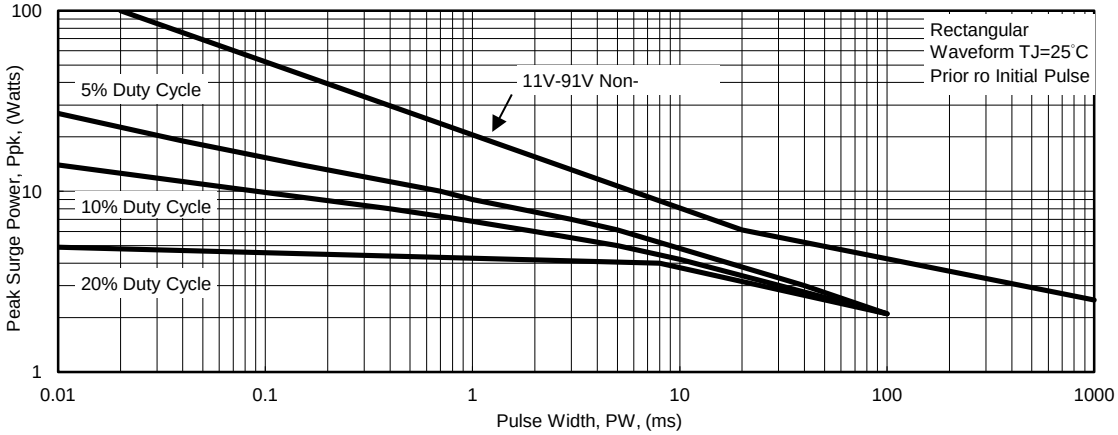


FIG.4 - Maximum Surge Power

GW SMA47xxA-SERIES

Electrical Characteristics(T_A=25℃ unless otherwise noted)

ZENER 1W SERIES	DEVICE MARKING CODE	Nominal Zener Voltage		Maximum Zener Impedance			Maximum Reverse Leakage Current		Maximum DC Zener Current	Maximum Surge Current
		VZ @ IZT	IZT	ZZT @ IZT	ZZK @ IZK	IZK	IR @ VR		IZM	IRM
		(V)	(mA)	(Ω)	(Ω)	(mA)	(uA)	(V)	(mA)	(mApk)
SMA4728A	**28A**	3.3	76.0	10.0	400	1.0	100	1.0	274	1370
SMA4729A	**29A**	3.6	69.0	10.0	400	1.0	100	1.0	251	1255
SMA4730A	**30A**	3.9	64.0	9.0	400	1.0	50	1.0	232	1160
SMA4731A	**31A**	4.3	58.0	9.0	400	1.0	10	1.0	210	1050
SMA4732A	**32A**	4.7	53.0	8.0	500	1.0	10	1.0	192	960
SMA4733A	**33A**	5.1	49.0	7.0	550	1.0	10	1.0	177	885
SMA4734A	**34A**	5.6	45.0	5.0	600	1.0	10	2.0	161	805
SMA4735A	**35A**	6.2	41.0	2.0	700	1.0	10	3.0	146	730
SMA4736A	**36A**	6.8	37.0	3.5	700	1.0	5.0	4.0	133	660
SMA4737A	**37A**	7.5	34.0	4.0	700	0.5	5.0	5.0	121	605
SMA4738A	**38A**	8.2	31.0	4.5	700	0.5	0.5	6.0	110	550
SMA4739A	**39A**	9.1	28.0	5.0	700	0.5	0.5	7.0	100	500
SMA4740A	**40A**	10	25.0	7.0	700	0.25	0.1	7.6	91	454
SMA4741A	**41A**	11	23.0	8.0	700	0.25	0.1	8.4	83	414
SMA4742A	**42A**	12	21.0	9.0	700	0.25	0.1	9.1	76	380
SMA4743A	**43A**	13	19.0	10	700	0.25	0.1	9.9	69	344
SMA4744A	**44A**	15	17.0	14	700	0.25	0.1	11.4	61	305
SMA4745A	**45A**	16	15.5	16	700	0.25	0.1	12.2	57	285
SMA4746A	**46A**	18	14.0	20	750	0.25	0.1	13.7	50	250
SMA4747A	**47A**	20	12.5	22	750	0.25	0.1	15.2	45	225
SMA4748A	**48A**	22	11.5	23	750	0.25	0.1	16.7	41	205
SMA4749A	**49A**	24	10.5	25	750	0.25	0.1	18.2	38	190
SMA4750A	**50A**	27	9.5	35	750	0.25	0.1	20.6	34	170
SMA4751A	**51A**	30	8.5	40	1000	0.25	0.1	22.8	30	150
SMA4752A	**52A**	33	7.5	45	1000	0.25	0.1	25.1	27	135
SMA4753A	**53A**	36	7.0	50	1000	0.25	0.1	27.4	25	125
SMA4754A	**54A**	39	6.5	60	1000	0.25	0.1	29.7	23	115
SMA4755A	**55A**	43	6.0	70	1500	0.25	0.1	32.7	22	110
SMA4756A	**56A**	47	5.5	80	1500	0.25	0.1	35.8	19	95
SMA4757A	**57A**	51	5.0	95	1500	0.25	0.1	38.8	18	90
SMA4758A	**58A**	56	4.5	110	2000	0.25	0.1	42.6	16	80
SMA4759A	**59A**	62	4.0	125	2000	0.25	0.1	47.1	14	70
SMA4760A	**60A**	68	3.7	150	2000	0.25	0.1	51.7	13	65
SMA4761A	**61A**	75	3.3	175	2000	0.25	0.1	56.0	12	60
SMA4762A	**62A**	82	3.0	200	3000	0.25	0.1	62.2	11	55
SMA4763A	**63A**	91	2.8	250	3000	0.25	0.1	69.2	10	50
SMA4764A	**64A**	100	2.5	350	3000	0.25	0.1	76.0	9.0	45

Notes :

(1) The type number listed have a standard tolerance on the nominal zener voltage of ± 5 %.

(2) The revese surge current is a non-repetitive, 8.3ms pulse width square wave or equivalent sine-wave superimposed on IZT per JEDEC Method