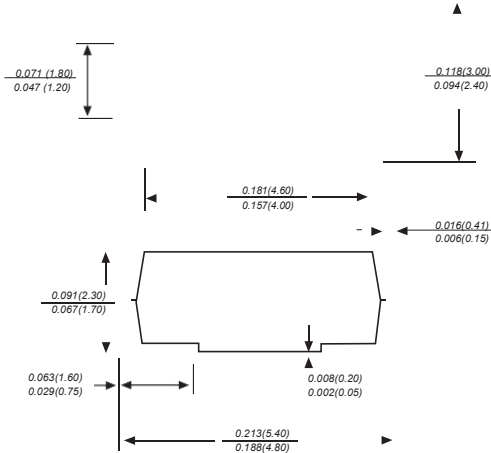


1SMA4728A THRU 1SMA4764A

1.0 WATT SURFACE MOUNTSILICON ZENER DIODES

Zener Voltage:3.3-100V Peak Pulse Power:1.0W

DO-214AC



Dimensions in inches and (millimeters)

FEATURES

- ◆ High reliability
- ◆ High temperature soldering guaranteed: 260°C/10 seconds at terminals

MECHANICAL DATA

Case: Molded plastic

Terminals: Solder plated, solderable per MIL-STD-750, Method 2026

Polarity: Color band denotes cathode

Mounting Position: Any

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25 °C ambient temperature unless otherwise specified.

Parameter	Symbol	Value	Units
Peak Power Dissipation (Note 1.) @ $T_L = 25^\circ\text{C}$, Pulse Width = 1 ms	P_{PK}	1	W
Thermal Resistance Junction To Ambient Air	$R_{\theta JA}$	100	$^\circ\text{C/W}$
Thermal Resistance Junction To Leads	$R_{\theta JL}$	25	$^\circ\text{C/W}$
Storage Temperature Range	T_{STG}	-55 to 150	$^\circ\text{C}$
Operating Junction Temperature Range	T_J	-55 to 150	$^\circ\text{C}$

Note: Mounted on minimum recommended pad layout

ELECTRICAL CHARACTERISTICS (at TA=25°C unless otherwise noted)

Type No.	Nominal Zener Voltage	Test Current	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(2)
	(V)	(mA)	(Ω)	(Ω)	(mA)	(uA)	(V)	(mA)	(mApk)
1SMA4728A	3.3	76.0	10	400	1.0	100	1.0	276	1380
1SMA4729A	3.6	69.0	10	400	1.0	100	1.0	252	1260
1SMA4730A	3.9	58.0	9.0	400	1.0	50	1.0	234	1190
1SMA4731A	4.3	58.0	9.0	400	1.0	10	1.0	217	1070
1SMA4732A	4.7	53.0	8.0	500	1.0	10	1.0	193	970
1SMA4733A	5.1	49.0	7.0	500	1.0	10	1.0	178	890
1SMA4734A	5.6	45.0	5.0	500	1.0	10	2.0	162	810
1SMA4735A	6.2	41.0	2.0	700	1.0	10	3.0	146	730
1SMA4736A	6.8	37.0	3.5	700	1.0	50	4.0	133	660
1SMA4737A	7.5	34.0	4.0	700	0.5	50	5.0	121	605
1SMA4738A	8.2	31.0	4.5	700	0.5	50	6.0	110	550
1SMA4739A	9.1	28.0	5.0	700	0.5	50	7.0	100	500
1SMA4740A	10	25.0	7.0	700	0.25	50	7.6	91	454
1SMA4741A	11	23.0	8.0	700	0.25	50	8.4	83	414
1SMA4742A	12	21.0	9.0	700	0.25	5.0	9.1	76	380
1SMA4743A	13	19.0	10	700	0.25	5.0	9.9	69	144
1SMA4744A	15	17.0	14	700	0.25	5.0	11.4	61	305
1SMA4745A	16	15.5	16	700	0.25	5.0	12.2	57	285
1SMA4746A	18	14.0	20	750	0.25	5.0	13.7	50	250
1SMA4747A	20	12.5	22	750	0.25	5.0	15.2	45	225
1SMA4748A	22	11.5	23	750	0.25	5.0	16.7	41	205
1SMA4749A	24	10.5	25	750	0.25	5.0	18.2	38	190
1SMA4750A	27	9.5	35	750	0.25	5.0	20.6	34	170
1SMA4751A	30	8.5	40	1000	0.25	5.0	22.8	30	150
1SMA4752A	33	7.5	45	1000	0.25	5.0	25.1	27	135
1SMA4753A	36	7.0	50	1000	0.25	5.0	27.4	25	125
1SMA4754A	39	6.5	60	1000	0.25	5.0	29.7	23	115
1SMA4755A	43	6.0	70	1500	0.25	5.0	32.7	22	110
1SMA4756A	47	5.5	80	1500	0.25	5.0	35.8	19	95
1SMA4757A	51	5.0	95	1500	0.25	5.0	38.8	18	90
1SMA4758A	56	4.5	110	2000	0.25	5.0	42.6	16	80
1SMA4759A	62	4.0	125	2000	0.25	5.0	47.1	14	70
1SMA4760A	68	3.7	150	2000	0.25	5.0	51.7	13	65
1SMA4761A	75	3.3	175	2000	0.25	5.0	56.0	12	60
1SMA4762A	82	3.0	200	3000	0.25	5.0	62.2	11	55
1SMA4763A	91	2.8	2.5	3000	0.25	5.0	69.2	10	50
1SMA4764A	100	2.5	350	3000	0.25	5.0	76.0	9.0	45

Notes : Suffix "A " indicates ± 5% tolerance.

RATINGS AND CHARACTERISTIC CURVES 1SMA4728A THRU 1SMA4764A

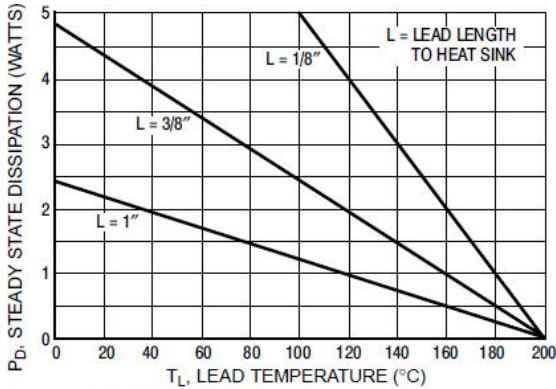


Figure 1. Power Temperature Derating Curve

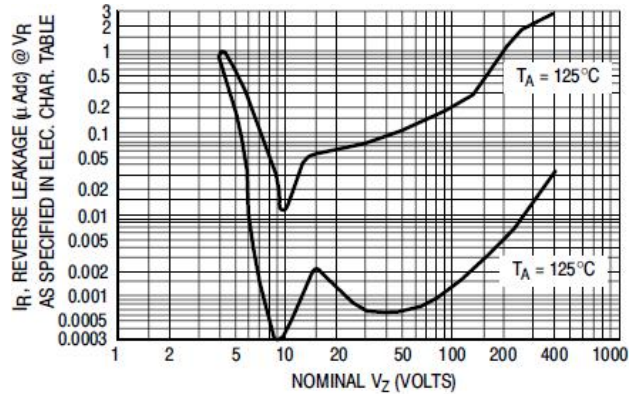


Figure 4. Typical Reverse Leakage

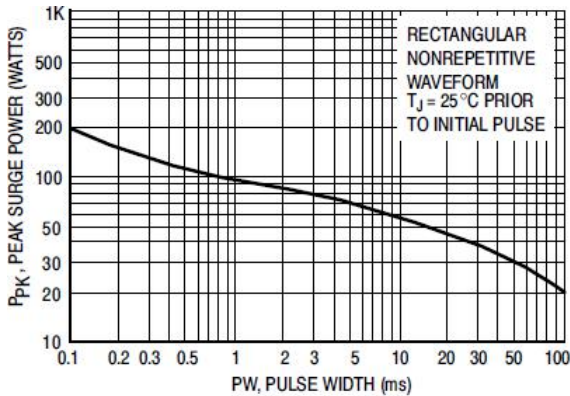


Figure 3. Maximum Surge Power

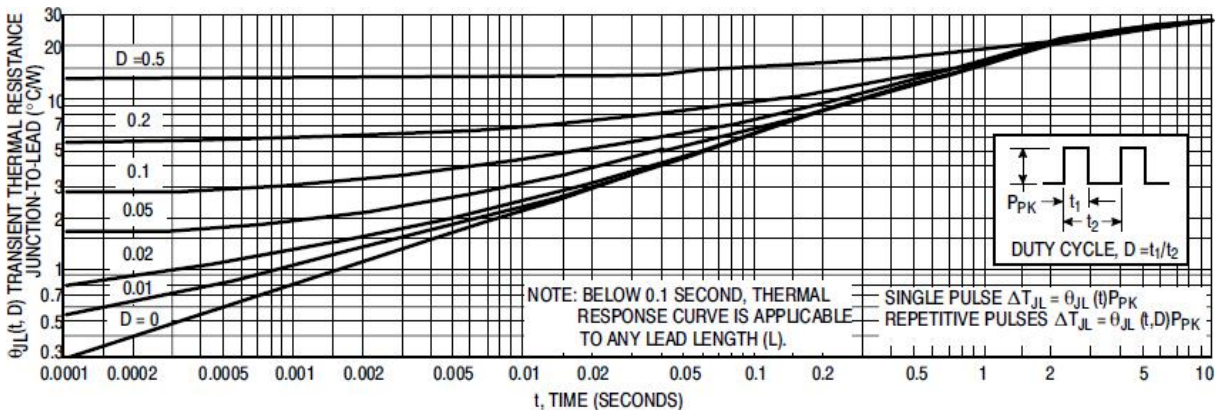


Figure 2. Typical Thermal Response L, Lead Length = 3/8 Inch