

Zener Diodes

SMAJ4728 - SMAJ4764

Features

- For surface mounted applications
- 1.0 W power dissipation
- Low reverse current
- Ideally suited for automated assembly processes
- RoHS compliant with Halogen-free



Mechanical Data

- Case: SMA molded plastic
- Molding compound, UL flammability classification rating 94V-0
- Polarity: Color band denotes cathode end

Maximum Ratings (@T_A = 25°C unless otherwise specified)

Parameter	Symbol	Value	Unit
Power dissipation ^{*1}	P _D	1.0	W
Maximum instantaneous forward voltage	V _F	1.15	V
Half sine-wave superimposed on rated load JEDEC method ^{*2}	I _{FSM}	10	A
Junction temperature	T _J	-55 ~ +150	°C
Storage temperature range	T _{STG}	-55 ~ +150	°C

Note^{*1}: Mounted on 5.0mm²(.013mm thick) land areas.

^{*2}: Mounted on 8.3ms, single half-sine wave or equivalent square wave, duty cycle = 4 pulses per minute maximum.

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Electrical Characteristics (@T_A = 25°C unless otherwise specified)

Part No.	Marking Code	Zener voltage			Test current	Dynamic impedance	Knee impedance	Knee current	Reverse current	
		V _Z			I _{ZT}	Z _{ZT}	Z _{ZK}	I _{ZK}	I _R	V _R
		MIN	TYP	Max	mA	Ohm	Ohm	mA	uA	V
SMAJ4728	4728	3.14	3.3	3.47	76.0	10.0	400	1.0	100	1.0
SMAJ4729	4729	3.42	3.6	3.78	69.0	10.0	400	1.0	100	1.0
SMAJ4731	4731	4.09	4.3	4.52	58.0	9.0	400	1.0	50	1.0
SMAJ4732	4732	4.47	4.7	4.94	53.0	8.0	500	1.0	10	1.0
SMAJ4733	4733	4.85	5.1	5.36	49.0	7.0	550	1.0	10	1.0
SMAJ4734	4734	5.32	5.6	5.88	45.0	5.0	600	1.0	10	2.0
SMAJ4735	4735	5.89	6.2	6.51	41.0	2.0	700	1.0	10	3.0
SMAJ4736	4736	6.46	6.8	7.14	37.0	3.5	700	1.0	10	4.0
SMAJ4737	4737	7.13	7.5	7.88	34.0	4.0	700	0.5	10	5.0
SMAJ4738	4738	7.79	8.2	8.61	31.0	4.5	700	0.5	10	6.0
SMAJ4739	4739	8.65	9.1	9.56	28.0	5.0	700	0.5	10	7.0
SMAJ4740	4740	9.50	10	10.50	25.0	7.0	700	0.25	10	7.6
SMAJ4741	4741	10.45	11	11.55	23.0	8.0	700	0.25	5	8.4
SMAJ4742	4742	11.40	12	12.60	21.0	9.0	700	0.25	5	9.1
SMAJ4743	4743	12.35	13	13.65	19.0	10.0	700	0.25	5	9.9
SMAJ4744	4744	14.25	15	15.75	17.0	14.0	700	0.25	5	11.4
SMAJ4745	4745	15.20	16	16.80	15.5	16.0	700	0.25	5	12.2
SMAJ4746	4746	17.10	18	18.90	14.0	20.0	750	0.25	5	13.7
SMAJ4747	4747	19.00	20	21.00	12.5	22.0	750	0.25	5	15.2
SMAJ4748	4748	20.90	22	23.10	11.5	23.0	750	0.25	5	16.7
SMAJ4749	4749	22.80	24	25.20	10.5	25.0	750	0.25	5	18.2
SMAJ4750	4750	25.65	27	28.35	9.5	35.0	750	0.25	5	20.6
SMAJ4751	4751	28.50	30	31.50	8.5	40.0	1000	0.25	5	22.8
SMAJ4752	4752	31.35	33	34.65	7.5	45.0	1000	0.25	5	25.1
SMAJ4753	4753	34.20	36	37.80	7.0	50.0	1000	0.25	5	27.4
SMAJ4754	4754	37.05	39	40.95	6.5	60.0	1000	0.25	5	29.7
SMAJ4755	4755	40.85	43	45.15	6.0	70.0	1500	0.25	5	32.7
SMAJ4756	4756	44.65	47	49.35	6.5	80.0	1500	0.25	5	35.8
SMAJ4757	4757	48.45	51	53.55	5.0	95.0	1500	0.25	5	38.8
SMAJ4758	4758	53.20	56	58.80	4.5	110.0	2000	0.25	5	42.6
SMAJ4759	4759	58.90	62	65.10	4.0	125.0	2000	0.25	5	47.1
SMAJ4760	4760	64.60	68	71.40	3.7	150.0	2000	0.25	5	51.7
SMAJ4761	4761	71.25	75	78.75	3.3	175.0	2000	0.25	5	56
SMAJ4762	4762	77.90	82	86.10	3.0	200.0	3000	0.25	5	62.2
SMAJ4763	4763	86.45	91	95.55	2.8	250.0	3000	0.25	5	69.2
SMAJ4764	4764	95.00	100	105.00	2.5	350.0	3000	0.25	5	76

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Ratings and Characteristic Curves (@ $T_A=25^\circ\text{C}$ unless otherwise noted)

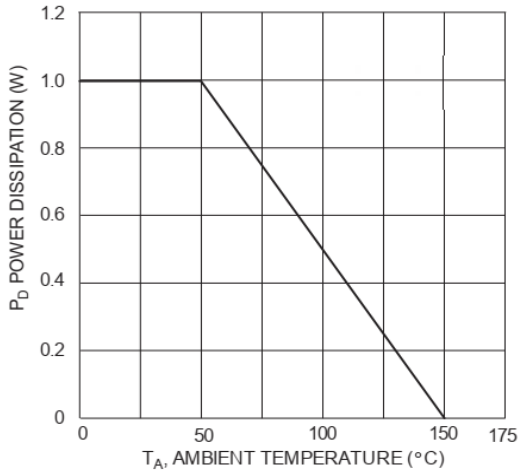


Fig. 1 Power Dissipation vs. Ambient Temperature

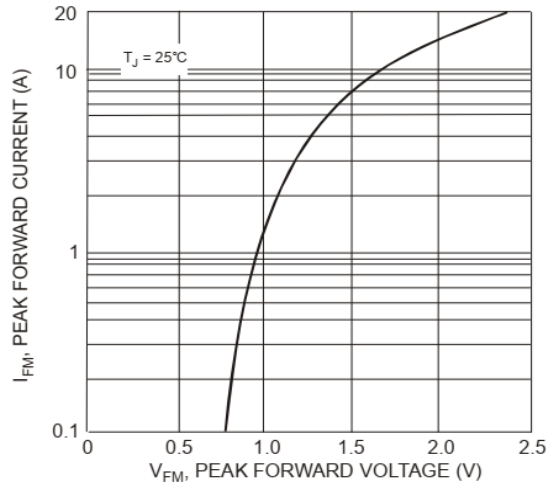


Fig. 2 Peak Forward Current vs. Peak Forward Voltage

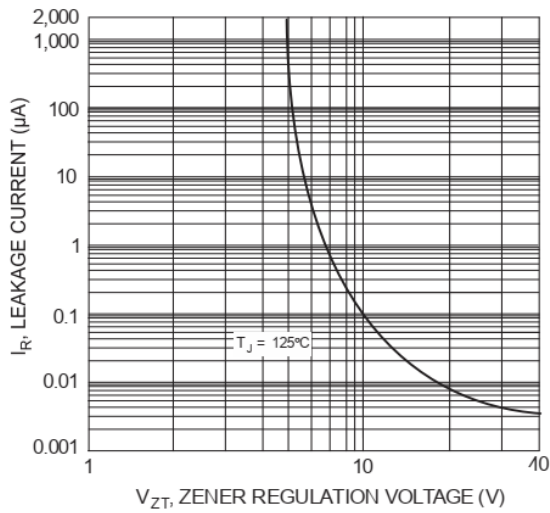
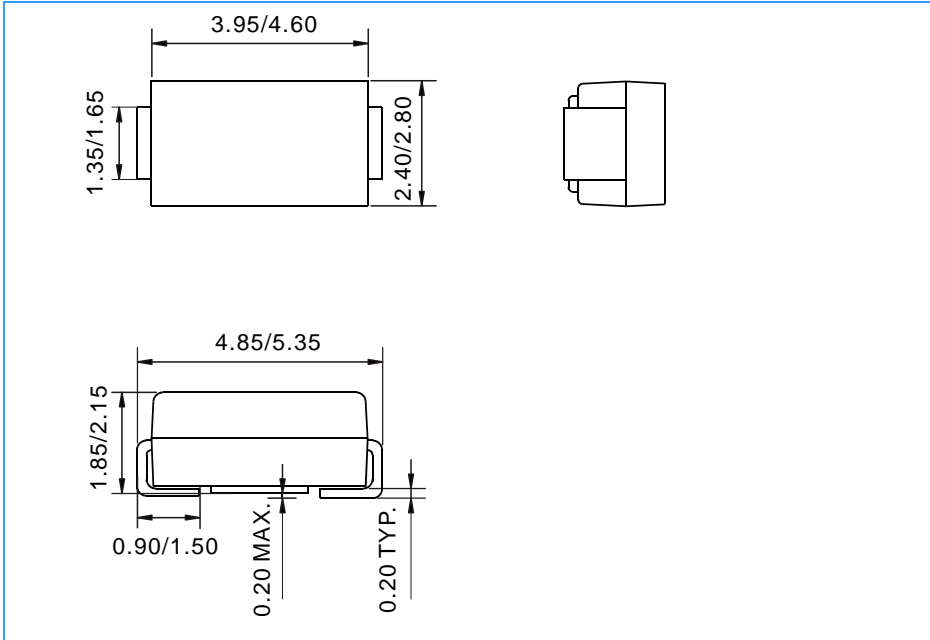


Fig. 3 Leakage Current vs. Regulation Voltage

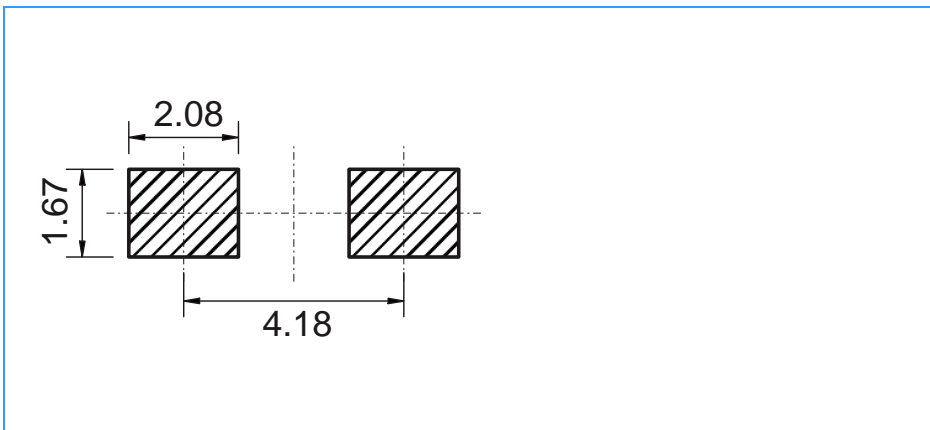
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Package Outline Dimensions (Unit: mm)



Mounting Pad Layout (Unit: mm)



Ordering Information

Part Number	Package	Shipping Quantity
SMAJ4728 - SMAJ4764	SMA	5000 / Tape & Reel