Micro Commercial Components
21201 Itasca Street Chatsworth
CA 91311
Phone: (818) 701-4933
Fax: (818) 701-4939

SMAJ4728 THRU SMAJ4764

Silicon

1 Watt

Zener Diodes

Features

- For surface mount application (flat handing surface for Accurate placement)
- 3.3 thru 100 Volt Voltage Range
- High Surge Current Rating
- Higher Voltages Available
- Available on Tape and Reel

Mechanical Data

- CASE: JEDEC DO-214AC molded plastic body over passivated chip
- Terminals solderable per MIL-STD-750, Method 2026
- Polarity is indicated by cathode band.
- Maximum temperature for soldering: 260°C for 10 seconds.
- For surface mount applications with flame retardent epoxy Meeting UL94V-0

Maximum Ratings @ 25°C Unless Otherwise Specified

Peak Surge Current	I_S	**See Table 1**	
Maximum Forward Voltage	V_F	**1.2V**	**(Note: 1)**
Steady State Power Dissipation	$P_{(AV)}$	**1.0W**	**(Note: 2,3)**
Operation And Storage Temperature	T_J, T_{STG}	**-55°C to +150°C**	

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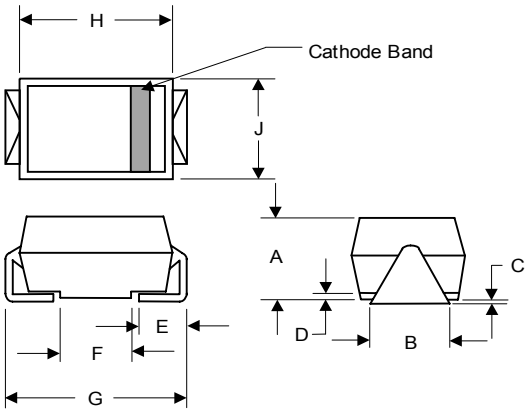
NOTES:

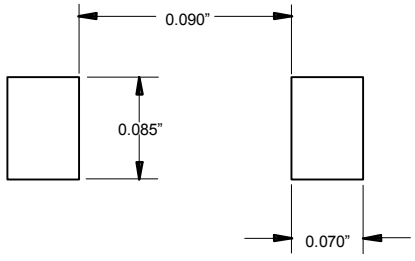
1. Forward Current @ 200mA.
2. Mounted on 4.0mm^2 copper pads to each terminal.
3. Lead temperature at 100°C or less. Derate linearly above 100°C to zero power at 150°C.

DO-214AC (SMAJ) (High Profile)



DIMENSIONS					
	INCHES		MM		
DIM	MIN	MAX	MIN	MAX	NOTE
A	.078	.116	1.98	2.95	
B	.067	.089	1.70	2.25	
C	.002	.008	.05	.20	
D	---	.02	---	.51	
E	.035	.055	.89	1.40	
F	.065	.096	1.65	2.45	
G	.205	.224	5.21	5.69	
H	.160	.180	4.06	4.57	
J	.100	.112	2.57	2.84	

SUGGESTED SOLDER PAD LAYOUT



SMAJ4728 thru SMAJ4764

Electrical Characteristics @ 25°C Unless Otherwise Specified

MCC PART NUMBER	ZENER VOLTAGE Vz	TEST CURRENT Izt	MAXIMUM DYNAMIC IMPEDANCE Zzt @ Izt	MAXIMUM REVERSE CURRENT Ir @ Vr	TEST VOLTAGE Vr	MAXIMUM REGULATOR CURRENT Izm Ta=50°C	MAXIMUM KNEE IMPEDANCE Zzk @ Izk	TEST CURRENT Izk	MAXIMUM SURGE CURRENT Is
	VOLTS	mA	OHMS	uA	VOLTS	mA	OHMS	MA	mA
SMAJ4728	3.3	76	10	100	1	276	400	1.0	1380
SMAJ4729	3.6	69	10	100	1	252	400	1.0	1260
SMAJ4730	3.9	64	9	50	1	234	400	1.0	1190
SMAJ4731	4.3	58	9	10	1	217	400	1.0	1070
SMAJ4732	4.7	53	8	10	1	193	500	1.0	970
SMAJ4733	5.1	49	7	10	1	178	550	1.0	890
SMAJ4734	5.6	45	5	10	2	162	600	1.0	810
SMAJ4735	6.2	41	2	10	3	146	700	1.0	730
SMAJ4736	6.8	37	3.5	10	4	133	700	1.0	660
SMAJ4737	7.5	34	4.0	10	5	121	700	0.5	605
SMAJ4738	8.2	31	4.5	10	6	110	700	0.5	550
SMAJ4739	9.1	28	5.0	10	7	100	700	0.5	500
SMAJ4740	10	25	7	10	7.6	91	700	0.25	454
SMAJ4741	11	23	8	5	8.4	83	700	0.25	414
SMAJ4742	12	21	9	5	9.1	76	700	0.25	380
SMAJ4743	13	19	10	5	9.9	69	700	0.25	344
SMAJ4744	15	17	14	5	11.4	61	700	0.25	304
SMAJ4745	16	15.5	16	5	12.2	57	700	0.25	285
SMAJ4746	18	14	20	5	13.7	50	750	0.25	250
SMAJ4747	20	12.5	22	5	15.2	45	750	0.25	225
SMAJ4748	22	11.5	23	5	16.7	41	750	0.25	205
SMAJ4749	24	10.5	25	5	18.2	38	750	0.25	190
SMAJ4750	27	9.5	35	5	20.6	34	750	0.25	170
SMAJ4751	30	8.5	40	5	22.8	30	1000	0.25	150
SMAJ4752	33	7.5	45	5	25.1	27	1000	0.25	135
SMAJ4753	36	7.0	50	5	27.4	25	1000	0.25	125
SMAJ4754	39	6.5	60	5	29.7	23	1000	0.25	115
SMAJ4755	43	6.0	70	5	32.7	22	1500	0.25	110
SMAJ4756	47	5.5	80	5	35.8	19	1500	0.25	95
SMAJ4757	51	5.0	95	5	38.8	18	1500	0.25	90
SMAJ4758	56	4.5	110	5	42.6	16	2000	0.25	80
SMAJ4759	62	4.0	125	5	47.1	14	2000	0.25	70
SMAJ4760	68	3.7	150	5	51.7	13	2000	0.25	65
SMAJ4761	75	3.3	175	5	56.0	12	2000	0.25	60
SMAJ4762	82	3.0	200	5	62.2	11	3000	0.25	55
SMAJ4763	91	2.8	250	5	69.2	10	3000	0.25	50
SMAJ4764	100	2.5	350	5	76.0	9	3000	0.25	45

NOTE 1 The JEDEC type numbers shown have A 5% tolerance on nominal zener voltage.
No suffix signifies A 10% tolerance, C signifies 2%, and D signifies 1% tolerance.

NOTE 2 The zener impedance is derived from the 60Hz AC voltage, which results when an AC current having an rms value equal to 10% of the DC zener current (Izt or Izk) is superimposed on Izt or Izk. Zener impedance is measured at two points to insure a sharp knee on the breakdown curve and eliminate unstable units.

NOTE 3 The reverse surge current is measured at 25°C ambient using a 1/2 square wave or equivalent sine wave pulse 1/120 second duration superimposed on Izt

NOTE 4 Voltage measurements to be performed 90 seconds after application of DC current.

Ratings and Characteristic Curves (TA = 25°C unless otherwise noted)

Admissible power dissipation versus ambient temperature

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