



# THE DATASHEET OF SMAJ4744A-TP



## Features

- For Surface Mount Applications
- VZ – Tolerance:  $\pm 5\%$
- Halogen Free. "Green" Device (Note 1)
- Moisture Sensitivity Level 1
- Epoxy Meets UL 94 V-0 Flammability Rating
- Lead Free Finish/RoHS Compliant (Note 2) ("P" Suffix Designates Compliant. See Ordering Information)

## Maximum Ratings

- Operating Junction Temperature Range:  $-65^{\circ}\text{C}$  to  $+150^{\circ}\text{C}$
- Storage Temperature Range:  $-65^{\circ}\text{C}$  to  $+150^{\circ}\text{C}$
- Thermal Resistance :  $100^{\circ}\text{C/W}$  Junction to Ambient
- Thermal Resistance :  $75^{\circ}\text{C/W}$  Junction to Lead

Parameter	Symbol	Rating	Conditions
Power Dissipation	$P_D$	1.0W	$T_A \leq 50^{\circ}\text{C}$
Zener Current	$I_Z$	$P_d/V_z$ mA	
Maximum Forward Voltage	$V_F$	1.2V	$I_F = 100\text{mA}$

Note:

1. Halogen free "Green" products are defined as those which contain  $<900\text{ppm}$  bromine,  $<900\text{ppm}$  chlorine ( $<1500\text{ppm}$  total Br + Cl) and  $<1000\text{ppm}$  antimony compounds.
2. High Temperature Solder Exemption Applied, see EU Directive Annex 7a.

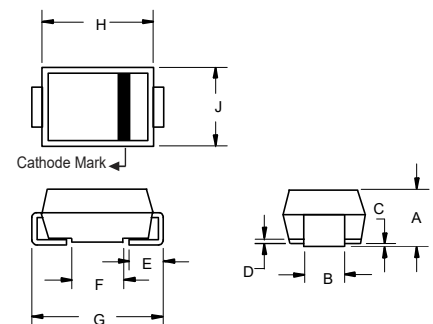
## Internal Structure

Description	Simplified outline	Graphic symbol
Uni-directional		

XXXX = Marking code

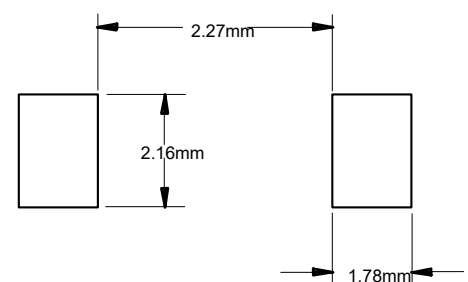
# 1.0 Watt Surface Mount Silicon Zener Diodes 5.1V to 100V

## SMA (DO-214AC) LEAD FRAME



DIM	DIMENSIONS				NOTE
	INCHES		MM		
	MIN	MAX	MIN	MAX	
A	0.075	0.096	1.90	2.44	
B	0.050	0.064	1.27	1.63	
C	0.002	0.008	0.051	0.203	
D	---	0.020	---	0.51	
E	0.030	0.060	0.76	1.52	
F	0.065	0.091	1.65	2.32	
G	0.189	0.220	4.80	5.59	
H	0.157	0.187	4.00	4.75	
J	0.090	0.115	2.25	2.92	

## SUGGESTED SOLDER PAD LAYOUT



**Electrical Characteristics @ 25°C Unless Otherwise Specified**

Part Number	Nominal Zener Voltage			Test Current	Maximum Dynamic Impedance Resistance			Maximum Reverse leakage Current		Maximum DC Zener Current	Marking Code
	VZ@IZT				IZT	ZZT at IZT	ZZK at IZK	IZK	IR		
	Min(V)	Nom(V)	Max(V)	mA	Ω	Ω	mA	μA	V	mA	
SMAJ4733A	4.85	5.1	5.36	49	7	550	1	10	1.0	177	733A
SMAJ4734A	5.32	5.6	5.88	45	5	600	1	10	2.0	161	734A
SMAJ4735A	5.89	6.2	6.51	41	2	700	1	10	3.0	146	735A
SMAJ4736A	6.46	6.8	7.14	37	3.5	700	1	10	4.0	133	736A
SMAJ4737A	7.13	7.5	7.88	34	4	700	0.5	10	5.0	121	737A
SMAJ4738A	7.79	8.2	8.61	31	4.5	700	0.5	10	6.0	110	738A
SMAJ4739A	8.65	9.1	9.56	28	5	700	0.5	10	7.0	100	739A
SMAJ4740A	9.50	10.0	10.50	25	7	700	0.25	10	7.6	91	740A
SMAJ4741A	10.45	11.0	11.55	23	8	700	0.25	5	8.4	83	741A
SMAJ4742A	11.40	12.0	12.60	21	9	700	0.25	5	9.1	76	742A
SMAJ4743A	12.35	13.0	13.65	19	10	700	0.25	5	9.9	69	743A
SMAJ4744A	14.25	15.0	15.75	17	14	700	0.25	5	11.4	61	744A
SMAJ4745A	15.20	16.0	16.80	15.5	16	700	0.25	5	12.2	57	745A
SMAJ4746A	17.10	18.0	18.90	14.0	20	750	0.25	5	13.7	50	746A
SMAJ4747A	19.00	20.0	21.00	12.5	22	750	0.25	5	15.2	45	747A
SMAJ4748A	20.90	22.0	23.10	11.5	23	750	0.25	5	16.7	41	748A
SMAJ4749A	22.80	24.0	25.20	10.5	25	750	0.25	5	18.2	38	749A
SMAJ4750A	25.65	27.0	28.35	9.5	35	750	0.25	5	20.6	34	750A
SMAJ4751A	28.50	30.0	31.50	8.5	40	1000	0.25	5	22.8	30	751A
SMAJ4752A	31.35	33.0	34.65	7.5	45	1000	0.25	5	25.1	27	752A
SMAJ4753A	34.20	36.0	37.80	7	50	1000	0.25	5	27.4	25	753A
SMAJ4754A	37.05	39.0	40.95	6.5	60	1000	0.25	5	29.7	23	754A
SMAJ4755A	40.85	43.0	45.15	6	70	1500	0.25	5	32.7	22	755A
SMAJ4756A	44.65	47.0	49.35	5.5	80	1500	0.25	5	35.8	19	756A
SMAJ4757A	48.45	51.0	53.55	5	95	1500	0.25	5	38.8	18	757A
SMAJ4758A	53.20	56.0	58.80	4.5	110	2000	0.25	5	42.6	16	758A
SMAJ4759A	58.90	62.0	65.10	4	125	2000	0.25	5	47.1	14	759A
SMAJ4760A	64.60	68.0	71.40	3.7	150	2000	0.25	5	51.7	13	760A
SMAJ4761A	71.25	75.0	78.75	3.3	175	2000	0.25	5	56.0	12	761A
SMAJ4762A	77.90	82.0	86.10	3	200	3000	0.25	5	62.2	11	762A
SMAJ4763A	86.45	91.0	95.55	2.8	250	3000	0.25	5	69.2	10	763A
SMAJ4764A	95.00	100.0	105.00	2.5	350	3000	0.25	5	76.0	9	764A

**Curve Characteristics**

Fig. 1 - Pulse Derating Curve

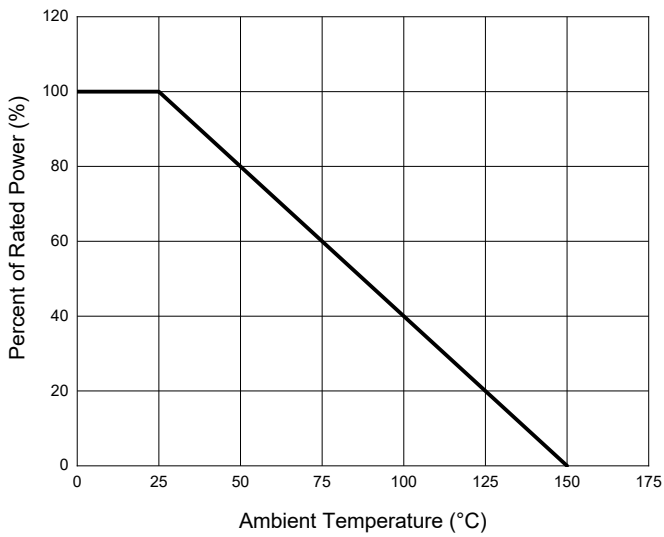


Fig. 2 - Typical Zener Breakdown Characteristics

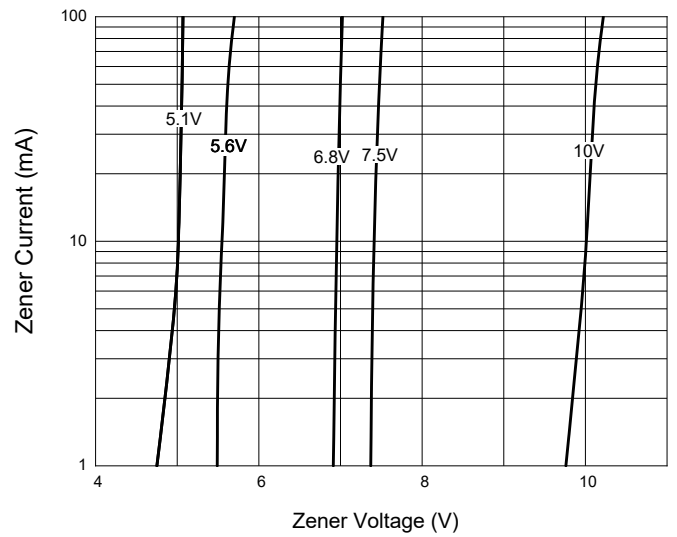


Fig. 3- Typical Zener Breakdown Characteristics

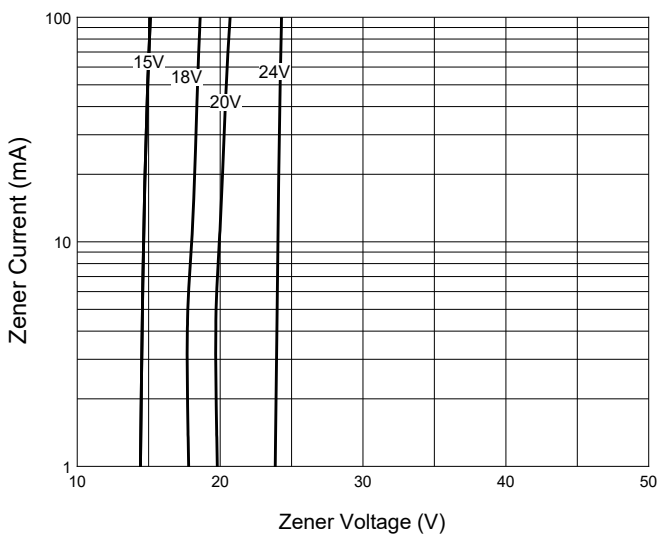


Fig. 4- Typical Zener Breakdown Characteristics

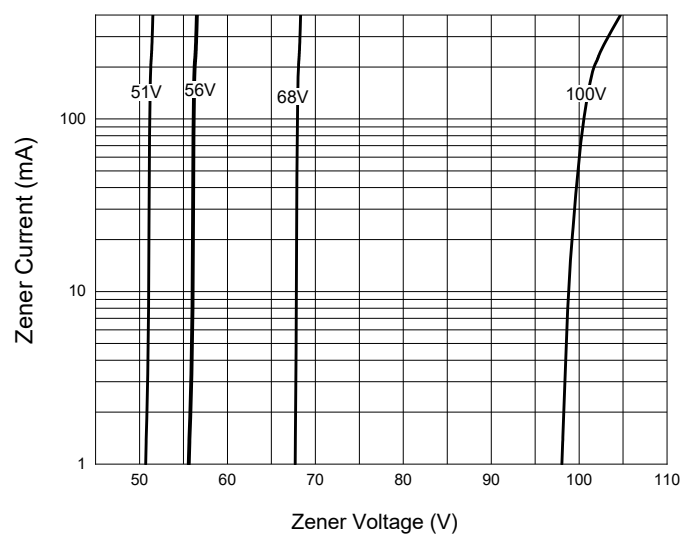


Fig. 5- Typical Forward Characteristics



## Ordering Information

Device	Packing
Part Number-TP	Tape&Reel:7.5Kpcs/Reel

### \*\*\*IMPORTANT NOTICE\*\*\*

**Micro Commercial Components Corp.** reserves the right to make changes without further notice to any product herein to make corrections, modifications, enhancements, improvements, or other changes. **Micro Commercial Components Corp.** does not assume any liability arising out of the application or use of any product described herein; neither does it convey any license under its patent rights, nor the rights of others. The user of products in such applications shall assume all risks of such use and will agree to hold **Micro Commercial Components Corp.** and all the companies whose products are represented on our website, harmless against all damages. **Micro Commercial Components Corp.** products are sold subject to the general terms and conditions of commercial sale, as published at <https://www.mccsemi.com/Home/TermsAndConditions>.

### \*\*\*LIFE SUPPORT\*\*\*

MCC's products are not authorized for use as critical components in life support devices or systems without the express written approval of Micro Commercial Components Corporation.

### \*\*\*CUSTOMER AWARENESS\*\*\*

Counterfeiting of semiconductor parts is a growing problem in the industry. Micro Commercial Components (MCC) is taking strong measures to protect ourselves and our customers from the proliferation of counterfeit parts. MCC strongly encourages customers to purchase MCC parts either directly from MCC or from Authorized MCC Distributors who are listed by country on our web page cited below. Products customers buy either from MCC directly or from Authorized MCC Distributors are genuine parts, have full traceability, meet MCC's quality standards for handling and storage. **MCC will not provide any warranty coverage or other assistance for parts bought from Unauthorized Sources.** MCC is committed to combat this global problem and encourage our customers to do their part in stopping this practice by buying direct or from authorized distributors.

## Looking for pricing, stock, or lifecycle information?

Click below to explore more details on WIN SOURCE:

- ⊖ [View SMAJ4744A-TP](#) on WIN SOURCE
- ⊖ [Micro Commercial Co](#) Information

## Optimize Your Supply Chain with WIN SOURCE Solutions

- ✓ Global Sourcing Solution
- ✓ Obsolete Management
- ✓ Cost Control Management
- ✓ Shortage Management
- ✓ Alternative Solution
- ✓ Excess Inventory Management