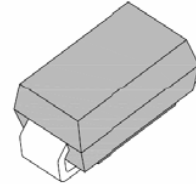


## 1.0W Surface Mount Zener Diodes

### Features

- Glass Passivated chip junction
- Low Zener Impedance
- Excellent Clamping Capability
- High temperature soldering guaranteed: 260°C/10 seconds
- RoHS Compliance



SMA



### Mechanical Data

<b>Case:</b>	SMA (DO-214AC) molded plastic
<b>Epoxy:</b>	Plastic package has UL flammability 94V-0
<b>Terminals:</b>	Solder plated, solderable per IEC 68-2-20
<b>Polarity:</b>	Color band denotes cathode
<b>Weight:</b>	0.064 gram

### Maximum Ratings *(T<sub>Ambient</sub>=25°C unless noted otherwise)*

Symbol	Description	Value	Unit	Conditions
<b>P<sub>tot</sub></b>	Power dissipation	1.0	W	T <sub>a</sub> =25 °C
<b>P<sub>tot</sub></b>	Power dissipation	3.0	W	T <sub>a</sub> =25 °C, R <sub>thJA</sub> = 25 °C / W
<b>T<sub>J</sub>,T<sub>STG</sub></b>	Operating Junction and Storage Temperature Range	-65 to 175	° C	
<b>V<sub>F</sub></b>	Max. Forward Voltage drop	1.0	V	I <sub>F</sub> =0.5A
<b>R<sub>thJC</sub></b>	Typical Thermal Resistance	25	°C / W	
<b>R<sub>thJA</sub></b>	PCB epoxy-glass path 1.5mm	150	°C / W	
	PCB epoxy-glass path 5 X 10mm	125	°C / W	
	Ceramic Plate (Al <sub>2</sub> O <sub>3</sub> ) path 5 X 10mm	100	°C / W	

# 1.0W Surface Mount Zener Diodes

## Z1SMA3V3 - Z1SMA200

### Electrical Characteristics ( $T_{Ambient}=25^{\circ}C$ unless noted otherwise)

Part NO.	Marking Code	Nominal Zener Voltage @ I <sub>ZT</sub>				Max. Zener Impedance	Max. Reverse Leakage Current I <sub>R</sub> @ V <sub>R</sub>		
		V <sub>Z</sub>			I <sub>ZT</sub> (mA)		Z <sub>ZT</sub> @ I <sub>ZT</sub>	I <sub>R</sub> (μA)	V <sub>R</sub> (V)
		Nom.	Min.	Max.					
Z1SMA3V3	FA	3.3	3.1	3.5	100	10	100	1	
Z1SMA3V6	FB	3.6	3.4	3.8	100	9	75	1	
Z1SMA3V9	FC	3.9	3.7	4.1	100	7.5	25	1	
Z1SMA4V3	FX	4.3	4	4.6	100	6	15	1	
Z1SMA4V7	FY	4.7	4.4	5	100	5	10	1	
Z1SMA5V1	EA	5.1	4.8	5.4	100	4	5	1.5	
Z1SMA5V6	EB	5.6	5.2	6	100	2	5	2	
Z1SMA6V2	EC	6.2	5.8	6.6	100	2	5	3	
Z1SMA6V8	EE	6.8	6.4	7.2	100	2.5	5	4	
Z1SMA7V5	ED	7.5	7	7.9	100	3	5	5	
Z1SMA8V2	EF	8.2	7.7	8.7	100	3.5	5	6	
Z1SMA9V1	EG	9.1	8.5	9.6	50	4	5	7	
Z1SMA10	EH	10	9.4	10.6	50	4	1	7.5	
Z1SMA11	EK	11	10.4	11.6	50	7	1	8.2	
Z1SMA12	EL	12	11.4	12.7	50	7	1	9.1	
Z1SMA13	EM	13	12.4	14.1	50	10	1	10	
Z1SMA15	EN	15	13.8	15.6	50	10	1	11	
Z1SMA16	EP	16	15.3	17.1	25	15	1	12	
Z1SMA18	EQ	18	16.8	19.1	25	15	1	13	
Z1SMA20	ER	20	18.8	21.2	25	15	1	15	
Z1SMA22	ES	22	20.8	23.3	25	15	1	16	
Z1SMA24	ET	24	22.8	25.6	25	15	1	18	
Z1SMA27	EU	27	25.1	28.9	25	15	1	20	
Z1SMA30	EV	30	28	32	25	15	1	22	
Z1SMA33	EW	33	31	35	25	15	1	24	
Z1SMA36	EX	36	34	38	10	40	1	27	
Z1SMA39	EY	39	37	41	10	40	1	30	
Z1SMA43	EZ	43	40	46	10	45	1	33	
Z1SMA47	FD	47	44	50	10	45	1	36	
Z1SMA51	FF	51	48	54	10	60	1	39	

# 1.0W Surface Mount Zener Diodes

## Z1SMA3V3 - Z1SMA200

Part NO.	Marking Code	Nominal Zener Voltage @ IZT				Max. Zener Impedance	Max. Reverse Leakage Current IR @ VR	
		Vz			IZT(mA)		ZzT @ IZT	IR (μA)
		Nom.	Min.	Max.				
Z1SMA56	FG	56	52	60	10	60	1	43
Z1SMA62	FH	62	58	66	10	80	1	47
Z1SMA68	FK	68	64	72	10	80	1	51
Z1SMA75	FL	75	70	80	10	100	1	56
Z1SMA82	FM	82	77	87	10	100	1	62
Z1SMA91	FN	91	85	96	5	200	1	68
Z1SMA100	F	100	94	106	5	200	1	75
Z1SMA110	FQ	110	104	116	5	250	1	82
Z1SMA120	FR	120	114	127	5	250	1	91
Z1SMA130	FS	130	124	141	5	300	1	100
Z1SMA150	FT	150	138	156	5	300	1	110
Z1SMA160	FU	160	153	171	5	350	1	120
Z1SMA180	FV	180	168	191	5	400	1	130
Z1SMA200	FW	200	188	212	5	400	1	150

### Typical Characteristics Curves

Fig.1-Max. Continuous Power Dissipation

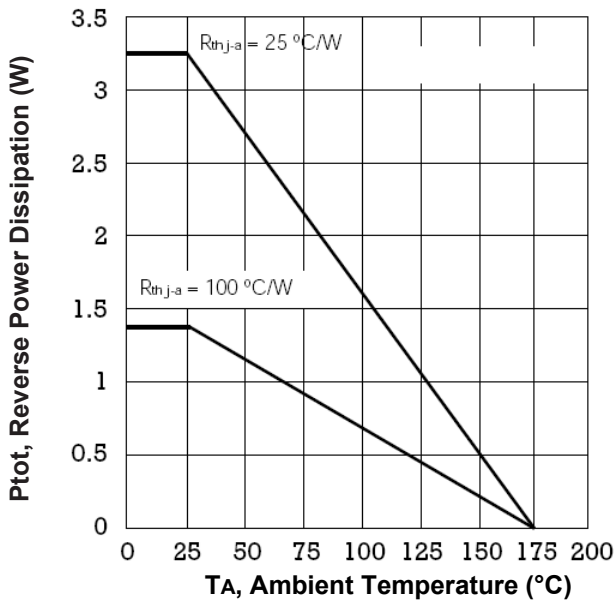
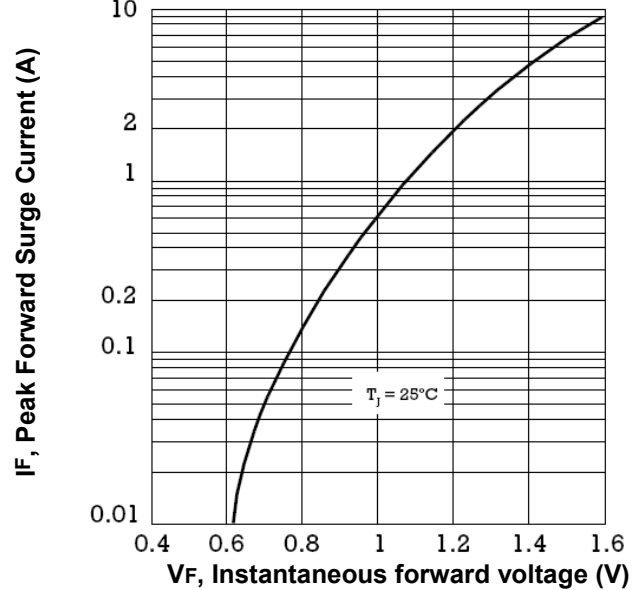


Fig.2- Typical Forward Characteristic



# 1.0W Surface Mount Zener Diodes

## Z1SMA3V3 - Z1SMA200

Fig.3-Typical Zener Impedance

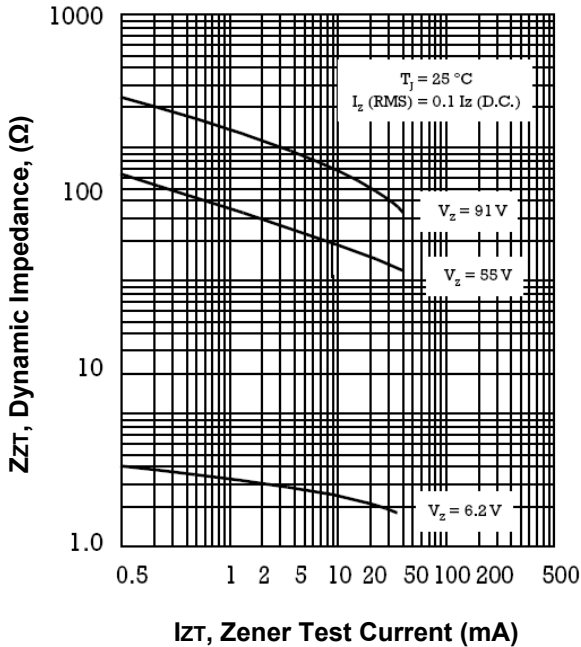
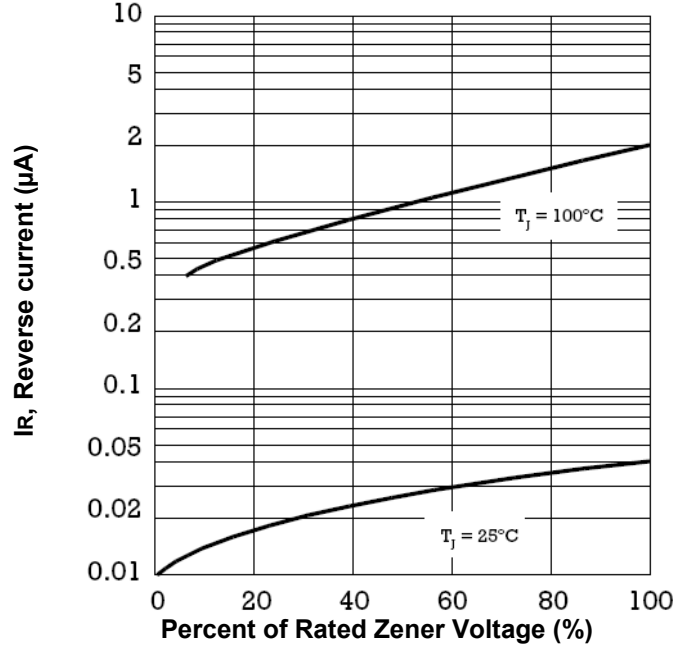
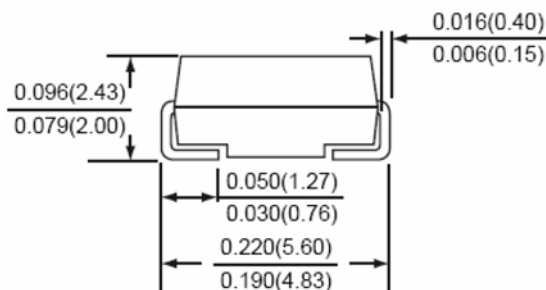
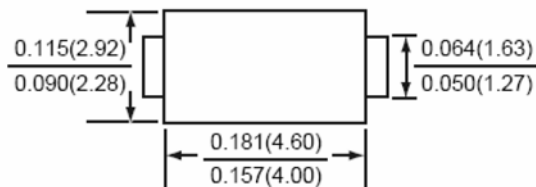


Fig.4-Typical Reverse Characteristics



### Dimensions in inch (mm)

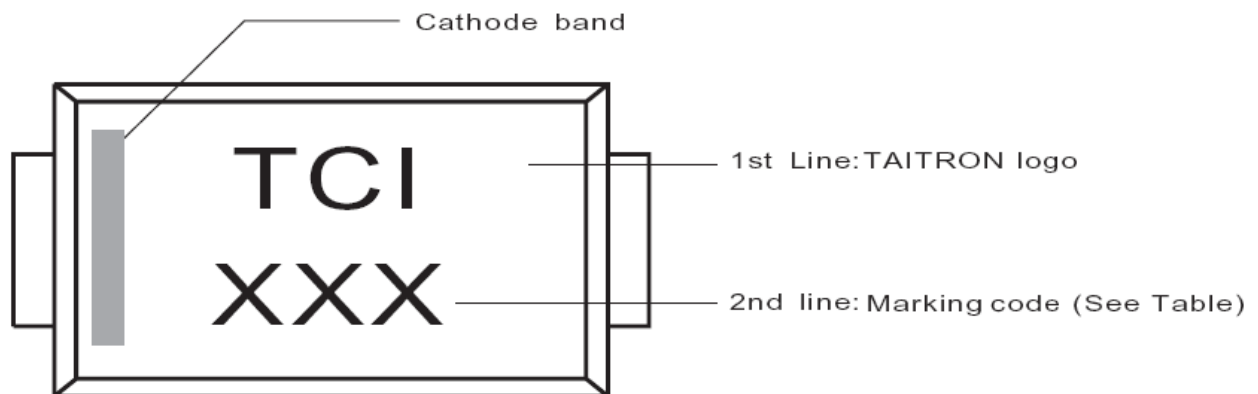


### SMA (DO-214AC)

# 1.0W Surface Mount Zener Diodes

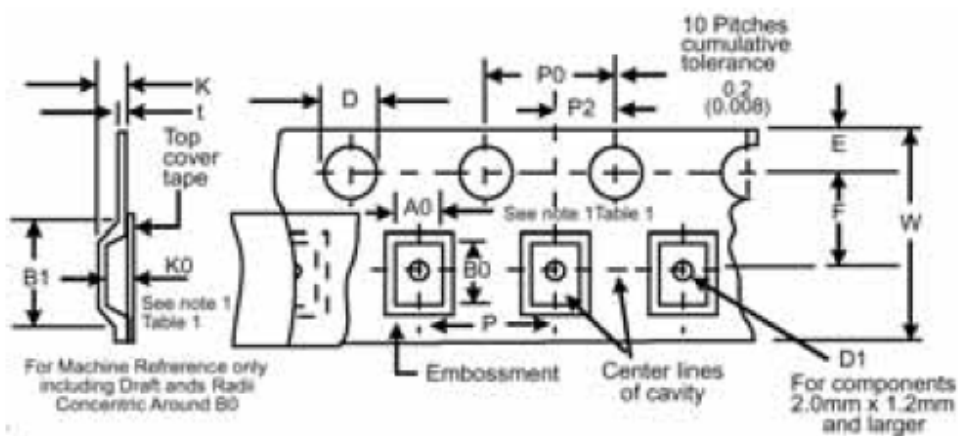
## Z1SMA3V3 - Z1SMA200

### Marking Information:



### Packing Information:

#### Carrier Tape Dimensions (in mm)

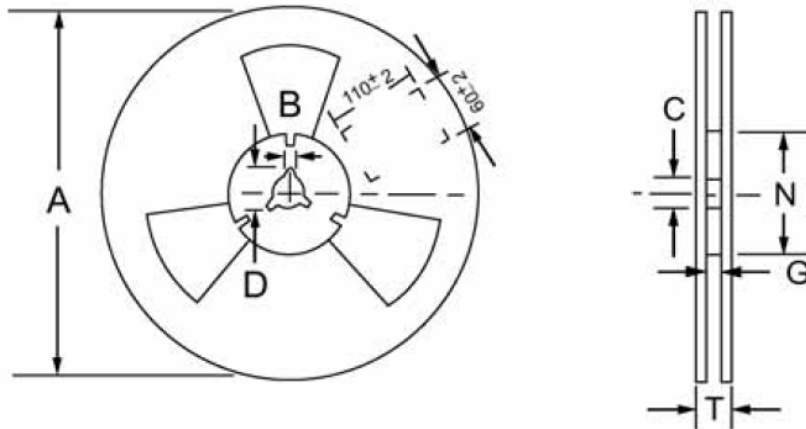


Components Outline	D	E	F	P0	P	W
SMA	1.55±0.10	1.75±0.10	5.5±0.05	4.0±0.10	4.0±0.10	12.0±0.30

# 1.0W Surface Mount Zener Diodes

## Z1SMA3V3 - Z1SMA200

### Reel Dimensions (in mm)



A	B	C	D	G	N	T
330 max.	1.5	13.0±0.5	20.2 min.	14.4 max.	75 min.	18.4 max.

### Packing Quantity Information:

Quantity	PCS per Inner Box	PCS per Carton
-TR70 Tape & Reel	1800/Reel	144000
- TR30 Tape & Reel	7500/Reel	120000

### Carton Size Information:

Cartoon Size
364X356X340( in mm)

# 1.0W Surface Mount Zener Diodes

## Z1SMA3V3 - Z1SMA200

### How to contact us

#### **US HEADQUARTERS**

28040 WEST HARRISON PARKWAY, VALENCIA, CA 91355-4162

Tel: (800) TAITRON (800) 824-8766 (661) 257-6060

Fax: (800) TAITFAX (800) 824-8329 (661) 257-6415

Email: [taitron@taitroncomponents.com](mailto:taitron@taitroncomponents.com)

Http://[www.taitroncomponents.com](http://www.taitroncomponents.com)

#### **TAITRON COMPONENTS MEXICO, S.A .DE C.V.**

BOULEVARD CENTRAL 5000 INTERIOR 5 PARQUE INDUSTRIAL ATITALAQUIA, HIDALGO C.P.

42970 MEXICO

Tel: +52-55-5560-1519

Fax: +52-55-5560-2190

#### **TAITRON COMPONENTS INCORPORATED REPRESENTAÇÕES DO BRASIL LTDA**

RUA DOMINGOS DE MORAIS, 2777, 2.ANDAR, SALA 24 SAÚDE - SÃO PAULO-SP 04035-001 BRAZIL

Tel: +55-11-5574-7949

Fax: +55-11-5572-0052

#### **TAITRON COMPONENTS INCORPORATED, SHANGHAI REPRESENTATIVE OFFICE**

CROSS REGION PLAZA, 899 LINGLING ROAD, SUITE 18C, SHANGHAI, 200030, CHINA

Tel: +86-21-5424-9942

Fax: +86-21-5424-9931