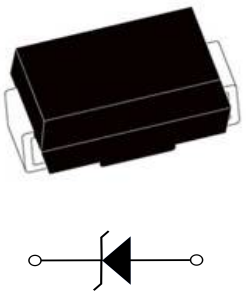
SZCJ **JIANGSU CHANGJING ELECTRONICS TECHNOLOGY CO., LTD.**

SMAG Plastic-Encapsulate Diodes

ZAD SERIES Zener Diodes

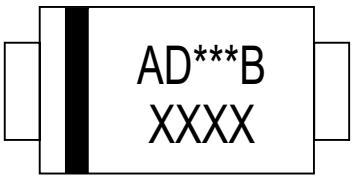
KEY PARAMETERS		
PARAMETER	VALUE	UNIT
V_Z	6.8 - 200	V
I_{ZT}	1.2 - 37	mA
P_D	1	W
$T_{J\ MAX}$	150	°C

SMAG



Features

- For surface mounted applications in order to optimize board space
- Low inductance
- Glass passivated chip junction
- RoHS Compliant



Color band = cathode end
AD***B = Device code
***=Voltage
XXXX=week code

Mechanical Data

- Case: DO-214AC (SMA)
- Molding compound meets UL 94V-0 flammability rating
- Terminal: Solder Plated, solderable per J-STD-002E
- Polarity: Color band denotes cathode end

Limiting Values(Absolute Maximum Rating)

Item	Symbol	Unit	Conditions	Max
Power dissipation	P_d	W	T_L=75℃	1.0
Zener current	I_Z	mA		P_Z / V_Z
Operation Junction and Storage Temperature Range	T_J, T_{stg}	℃		-55 ~ +150

Electrical Characteristics（T_a=25℃ Unless otherwise specified）

Item	Symbol	Unit	Conditions	Max
Non-repetitive peak forward surge current	IFSM	A	8.3ms single half sine-wave	10
Thermal resistance	$R_{\theta JA}$	℃/W	Between junction to ambient	120
Forward voltage	V_F	V	I_F=200mA	1.2

Electrical Characteristics (T_A=25℃ unless otherwise noted)

Part Number	Marking	Nominal Zener Voltage				Maximum Zener Impedance			Maximum Reverse Leakage Current		Maximum DC Zener Current
		VZ @ IZT			IZT	ZZT @ IZT	ZZK @ IZK	IZK	IR@VR		IZM
		Nom.V	Min. V	Max. V	mA	Ω	Ω	mA	uA	V	mA
ZAD6.8B	AD6.8B	6.8	6.5	7.1	37.0	3.5	700	1.00	10	4.0	133
ZAD7.5B	AD7.5B	7.5	7.1	7.9	34.0	4.0	700	0.50	10	5.0	127
ZAD8.2B	AD8.2B	8.2	7.8	8.6	31.0	4.5	700	0.50	10	6.0	116
ZAD9.1B	AD9.1B	9.1	8.6	9.6	28.0	5.0	700	0.50	5	7.0	104
ZAD010B	AD010B	10	9.5	10.5	25.0	7.0	700	0.25	0.5	7.6	95
ZAD011B	AD011B	11	10.4	11.6	23.0	8.0	700	0.25	0.2	8.0	86
ZAD012B	AD012B	12	11.4	12.6	21.0	9.0	700	0.25	0.1	9.1	79
ZAD013B	AD013B	13	12.4	14.1	19.0	10	700	0.25	0.1	9.9	71
ZAD015B	AD015B	15	13.8	15.8	17.0	14	700	0.25	0.1	11.4	61
ZAD016B	AD016B	16	15.2	16.8	16.0	16	700	0.25	0.1	12.2	58
ZAD018B	AD018B	18	16.8	19.2	14.0	20	750	0.25	0.1	13.7	52
ZAD020B	AD020B	20	19.0	21.2	12.5	22	750	0.25	0.1	15.2	47
ZAD022B	AD022B	22	20.8	23.3	11.5	23	750	0.25	0.1	16.7	43
ZAD024B	AD024B	24	22.8	25.2	10.5	25	750	0.25	0.1	18.2	38
ZAD027B	AD027B	27	25.3	28.9	9.5	35	750	0.25	0.1	20.6	35
ZAD030B	AD030B	30	28.2	32.0	8.5	40	1000	0.25	0.1	22.8	31
ZAD033B	AD033B	33	31.3	34.9	7.5	45	1000	0.25	0.1	25.1	28
ZAD036B	AD036B	36	34.2	37.9	7.0	50	1000	0.25	0.1	27.4	26
ZAD039B	AD039B	39	37.2	41.5	6.5	60	1000	0.25	0.1	29.7	24
ZAD043B	AD043B	43	40.9	45.6	6.0	70	1500	0.25	0.1	32.7	22
ZAD047B	AD047B	47	44.9	49.8	5.5	80	1500	0.25	0.1	35.8	20
ZAD051B	AD051B	51	48.6	54.0	5.0	95	1500	0.25	0.1	38.8	18
ZAD056B	AD056B	56	53.6	58.8	4.5	110	2000	0.25	0.1	42.6	17
ZAD062B	AD062B	62	58.9	65.6	4.0	125	2000	0.25	0.1	47.1	15
ZAD068B	AD068B	68	64.6	71.7	3.7	150	2000	0.25	0.1	51.7	14
ZAD075B	AD075B	75	71.2	78.8	3.3	175	2000	0.25	0.1	56.0	12
ZAD082B	AD082B	82	77.9	87.0	3.0	200	3000	0.25	0.1	62.2	11
ZAD091B	AD091B	91	86.0	96.0	2.8	250	3000	0.25	0.1	69.2	10
ZAD100B	AD100B	100	95.0	105	2.5	350	3000	0.25	0.1	76.0	9.5
ZAD110B	AD110B	110	104	116	2.3	450	4000	0.25	0.1	83.6	8.6
ZAD120B	AD120B	120	114	127	2.0	550	4500	0.25	0.1	91.2	7.8
ZAD130B	AD130B	130	125	142	1.9	700	5000	0.25	0.1	98.8	7.0
ZAD150B	AD150B	150	140	157	1.7	900	6000	0.25	0.1	114.0	6.3
ZAD160B	AD160B	160	152	168	1.6	1100	6500	0.25	0.1	121.6	5.8
ZAD180B	AD180B	180	168	189	1.4	1200	7000	0.25	0.1	136.8	5.2
ZAD200B	AD200B	200	189	211	1.2	1400	9990	0.25	0.1	152.0	4.7

Notes :

(1) The type number listed have a standard tolerance on the nominal zener voltage of ± 5 %

Typical Characteristics

Figure 1. Maximum Continuous Power Dissipation

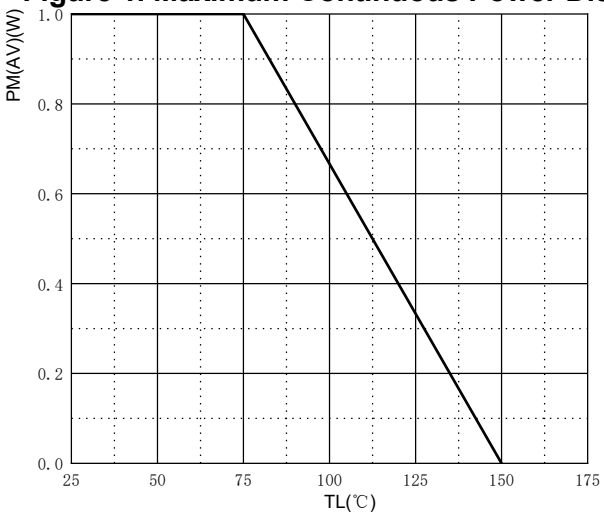


Figure 2. Typical Zener Impedance

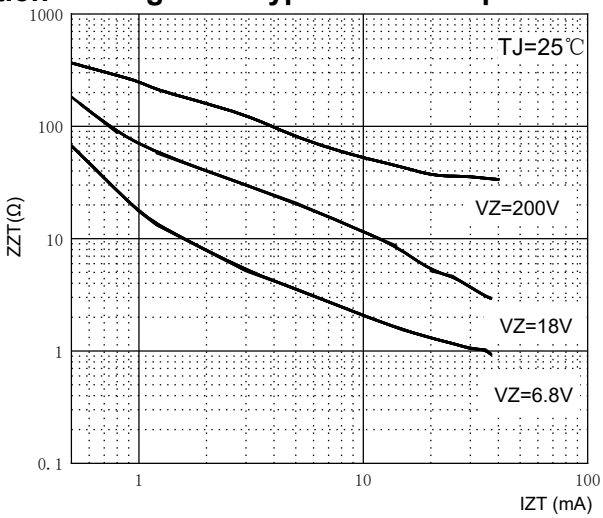


Figure 3. Typical Temperature Coefficients

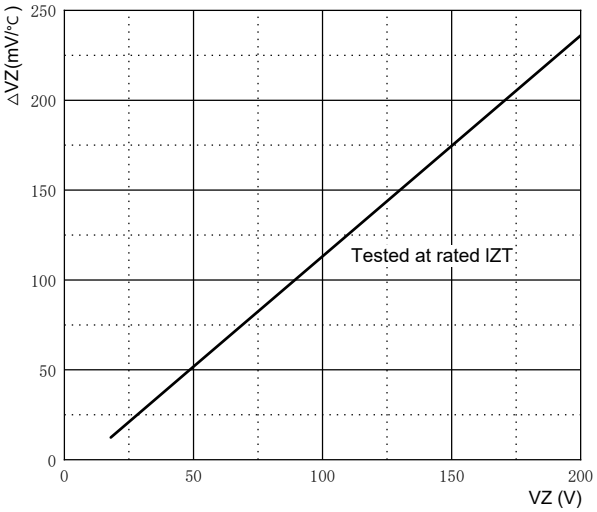


Figure 4. Typical Instantaneous Forward Characterist

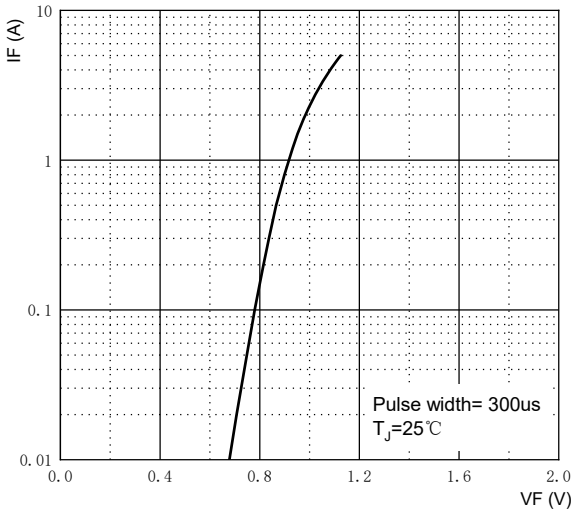
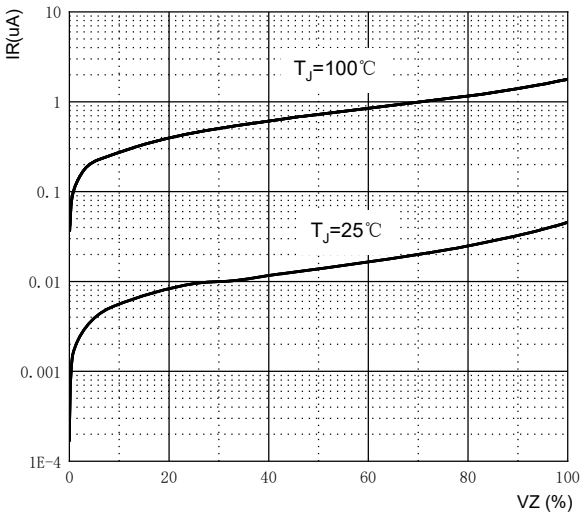
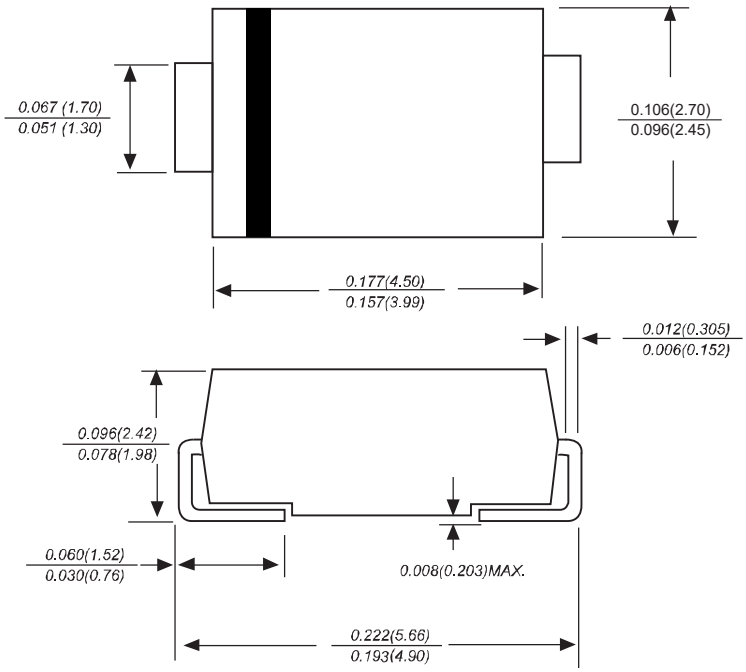


Figure 5. Typical Reverse Characteristics

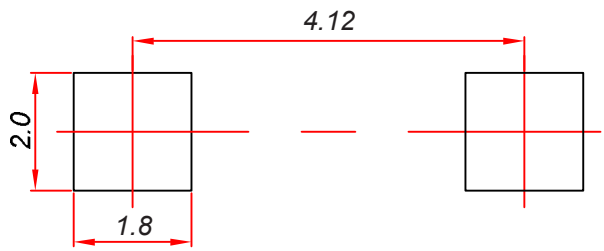


SMAG Package Outline Dimensions



Dimensions in inches and (millimeters)

SMAG Suggested Pad Layout



Note:
1.Controlling dimension: in millimeters.
2.General tolerance:±0.05 mm.
3.The pad layout is for reference purposes only.

NOTICE

SZCJ reserves the right to make modifications,enha nts,improvements,corrections or other es without further notice to any product herein.SZCJ does not assume any liability arising out of the application or use of any product described .

Reel Taping Specifications For Surface Mount Devices - SMAG

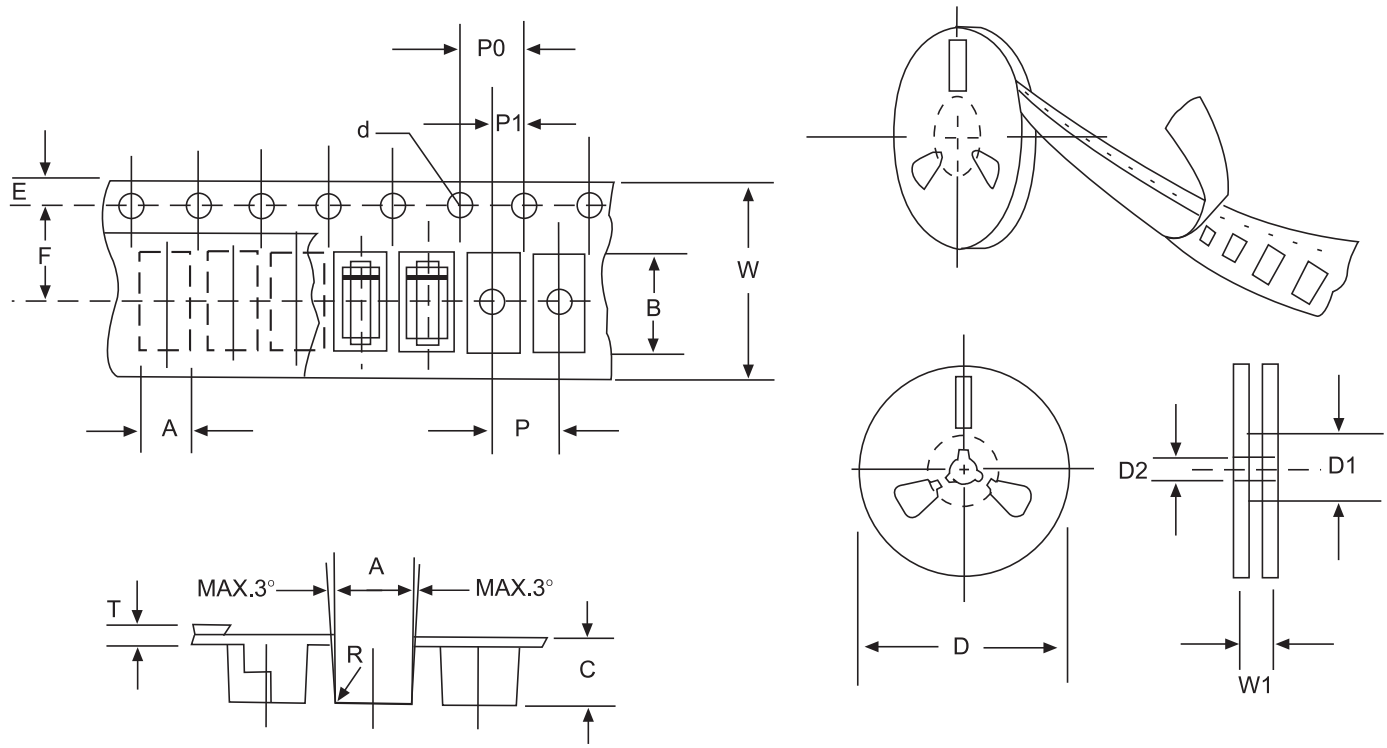


FIG:CONFIGURATION OF SURFACE MOUNTED DEVICES TAPING

ITEM	SYMBOL	SMAG mm (inch)
Carrier width	A	2.79±0.1 (0.110±0.004)
Carrier length	B	5.33±0.1 (0.210±0.004)
Carrier depth	C	2.36±0.1 (0.093±0.004)
Sprocket hole	d	1.55±0.05 (0.061±0.002)
Reel outside diameter	D	279±2.0 (11±0.079)
Reel inside diameter	D1	75±1.0 (2.95±0.039)
Feed hole position	D2	13±0.5 (0.512±0.020)
Stroket hole position	E	1.75±0.1 (0.069±0.004)
Punch hole position	F	5.5±0.05 (0.217±0.002)
Punch hole pitch	P	4.0±0.1 (0.157±0.004)
Stroket hole pitch	P0	4.0±0.1 (0.157±0.004)
Embossment center	P1	2.0±0.1 (0.079±0.004)
Totall tape thickness	T	0.28±0.02 (0.011±0.0008)
Tape width	W	12.0±0.2 (0.472±0.008)
Reel width	W1	16.8±2.0 (0.661±0.069)

NOTE: Devices are packed in accordance with EIA standard RS-481-A and specification given above.