

SURFACE MOUNT SILICON ZENER DIODE

**1SMA5917 - 1SMA5945
(4V7 - 68V)**



**DO-214AC (SMA)
Surface Mount Package**

ABSOLUTE MAXIMUM RATINGS

DESCRIPTION	SYMBOL	VALUE	UNIT
Power Dissipation @ $T_a=50^\circ\text{C}$ Derate Above 50°C	$*P_D$	1.5 15	W mW/ $^\circ\text{C}$
Peak Forward Surge Current, 8.3ms Single Half Sine-Wave Superimposed on Rated Load	$**I_{FSM}$	10	A
Operating Junction and Storage Temperature Range	T_j, T_{stg}	- 55 to +150	$^\circ\text{C}$

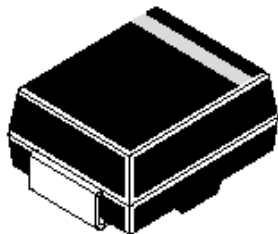
* Mounted on 5.0mm^2 (0.013mm thick) land area

** Measured on 8.3ms, and single half sine-wave or equivalent square wave, duty cycle=4 pulses per minute maximum

ELECTRICAL CHARACTERISTICS ($T_a=25^\circ\text{C}$ unless specified otherwise) $V_F @ 200\text{mA} < 1.2\text{V}$

Device #	Zener Voltage			Zener Impedance				Reverse Leakage		Marking Code
	$V_z @ I_{ZT}$			$Z_{ZT} @ I_{ZT}$		$Z_{ZK} @ I_{ZK}$		$I_R @$	V_R	
	Nom. V	min	max	(W) max	(mA)	(W) max	(mA)	(mA) max	(V)	
1SMA5917	4.7	4.46	4.94	5.0	79.8	500	1.0	5.0	1.5	917A
1SMA5918	5.1	4.84	5.36	4.0	73.5	350	1.0	5.0	2.0	918A
1SMA5919	5.6	5.32	5.88	2.0	66.9	250	1.0	5.0	3.0	919A
1SMA5920	6.2	5.89	6.51	2.0	60.5	200	1.0	5.0	4.0	920A
1SMA5921	6.8	6.46	7.14	2.5	55.1	200	1.0	5.0	5.2	921A
1SMA5922	7.5	7.12	7.88	3.0	50.0	400	0.50	5.0	6.0	922A
1SMA5923	8.2	7.79	8.61	3.5	45.7	400	0.50	5.0	6.5	923A
1SMA5924	9.1	8.64	9.56	4.0	41.2	500	0.50	5.0	7.0	924A
1SMA5925	10	9.50	10.50	4.5	37.5	500	0.25	5.0	8.0	925A
1SMA5926	11	10.45	11.55	5.5	34.1	550	0.25	1.0	8.4	926A
1SMA5927	12	11.40	12.60	6.5	31.2	550	0.25	1.0	9.1	927A
1SMA5928	13	12.35	13.65	7.0	28.8	550	0.25	1.0	9.9	928A
1SMA5929	15	14.25	15.75	9.0	25.0	600	0.25	1.0	11.4	929A
1SMA5930	16	15.20	16.80	10	23.4	600	0.25	1.0	12.2	930A
1SMA5931	18	17.10	18.90	12	20.8	650	0.25	1.0	13.7	931A
1SMA5932	20	19.00	21.00	14	18.7	650	0.25	1.0	15.2	932A
1SMA5933	22	20.90	23.10	17.5	17.0	650	0.25	1.0	16.7	933A
1SMA5934	24	22.80	25.20	19	15.6	700	0.25	1.0	18.2	934A
1SMA5935	27	25.65	28.35	23	13.9	700	0.25	1.0	20.6	935A
1SMA5936	30	28.50	31.50	28	12.5	750	0.25	1.0	22.8	936A
1SMA5937	33	31.35	34.65	33	11.4	800	0.25	1.0	25.1	937A
1SMA5938	36	34.20	37.80	38	10.4	850	0.25	1.0	27.4	938A
1SMA5939	39	37.05	41.00	45	9.60	900	0.25	1.0	29.7	939A
1SMA5940	43	40.85	45.20	53	8.70	950	0.25	1.0	32.7	940A

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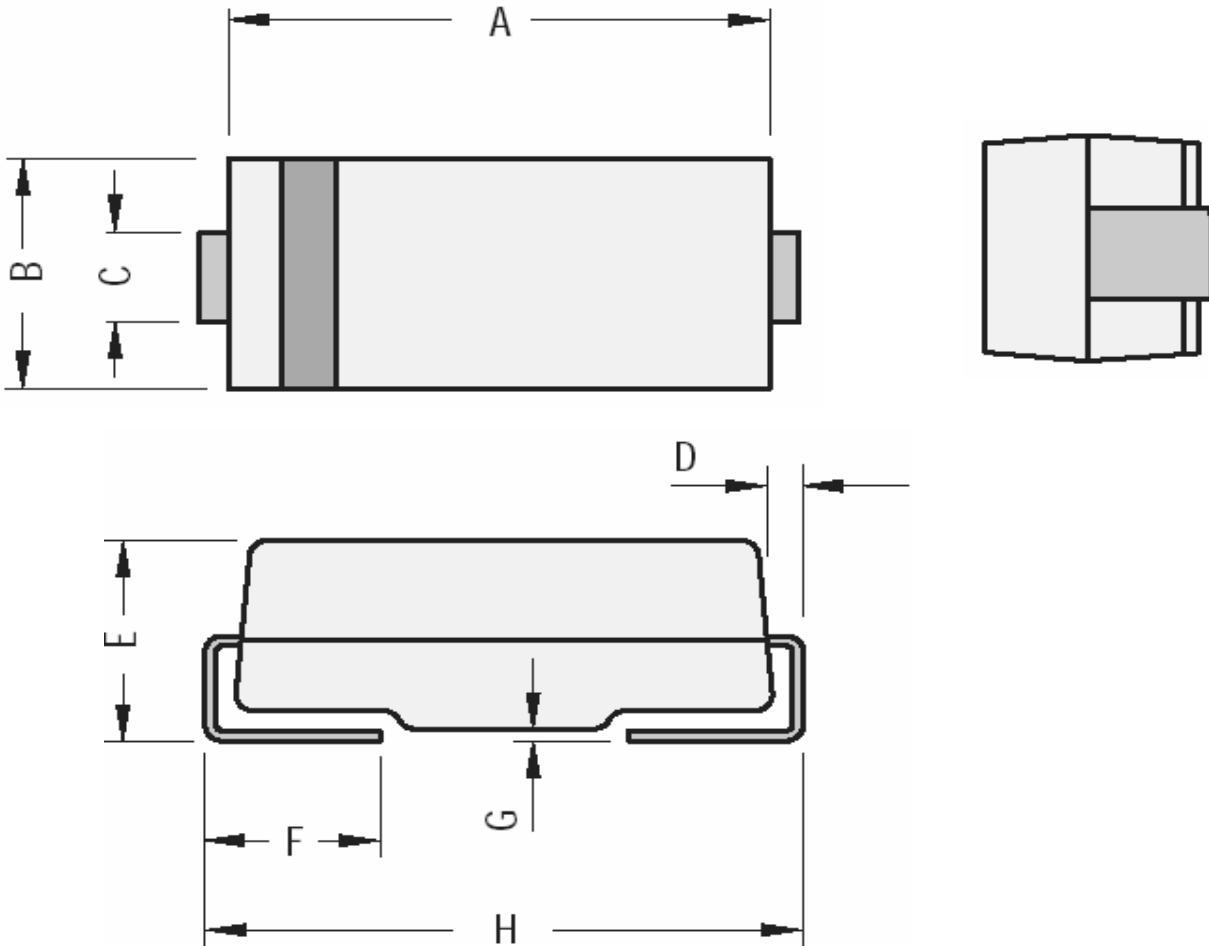
**DO-214AC (SMA)
Surface Mount Package**

ELECTRICAL CHARACTERISTICS (T_a=25°C unless specified otherwise) V_F @ 200mA <1.2V

Device #	Nom. V	Zener Voltage		Zener Impedance				Reverse Leakage		Marking Code
		V _Z @ I _{ZT}		Z _{ZT} @ I _{ZT}		Z _{ZK} @ I _{ZK}		I _R @	V _R	
		(V)		(W)	(mA)	(W)	(mA)	(mA)	(V)	
		min	max	max		max		max		
1SMA5941	47	44.65	49.40	67	8.00	1000	0.25	1.0	35.8	941A
1SMA5942	51	48.45	53.60	70	7.30	1100	0.25	1.0	38.8	942A
1SMA5943	56	53.2	58.8	86	6.7	1300	0.25	1.0	42.6	943A
1SMA5944	62	58.9	65.1	100	6.0	1500	0.25	1.0	47.1	944A
1SMA5945	68	64.6	71.4	120	5.5	1700	0.25	1.0	51.7	945A

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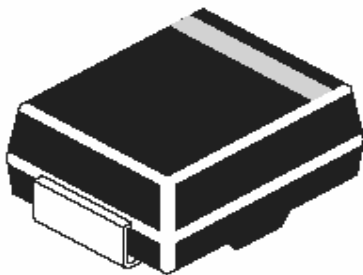
DO-214AC (SMA) SMD Plastic Package



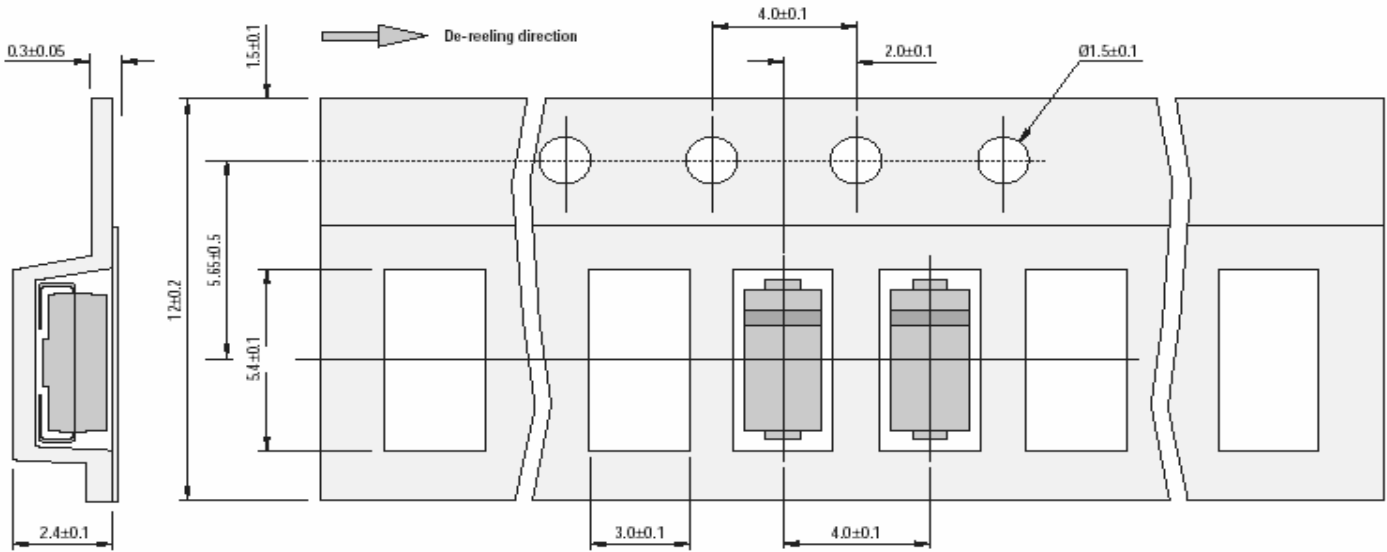
DIM	Min	Max
A	4.06	4.57
B	2.18	2.79
C	1.29	1.70
D	0.152	0.305

DIM	Min	Max
E	1.70	2.31
F	0.89	1.50
G	0.102	0.203
H	4.70	5.31

All Dimensions are in mm



SMA Packaging Tape



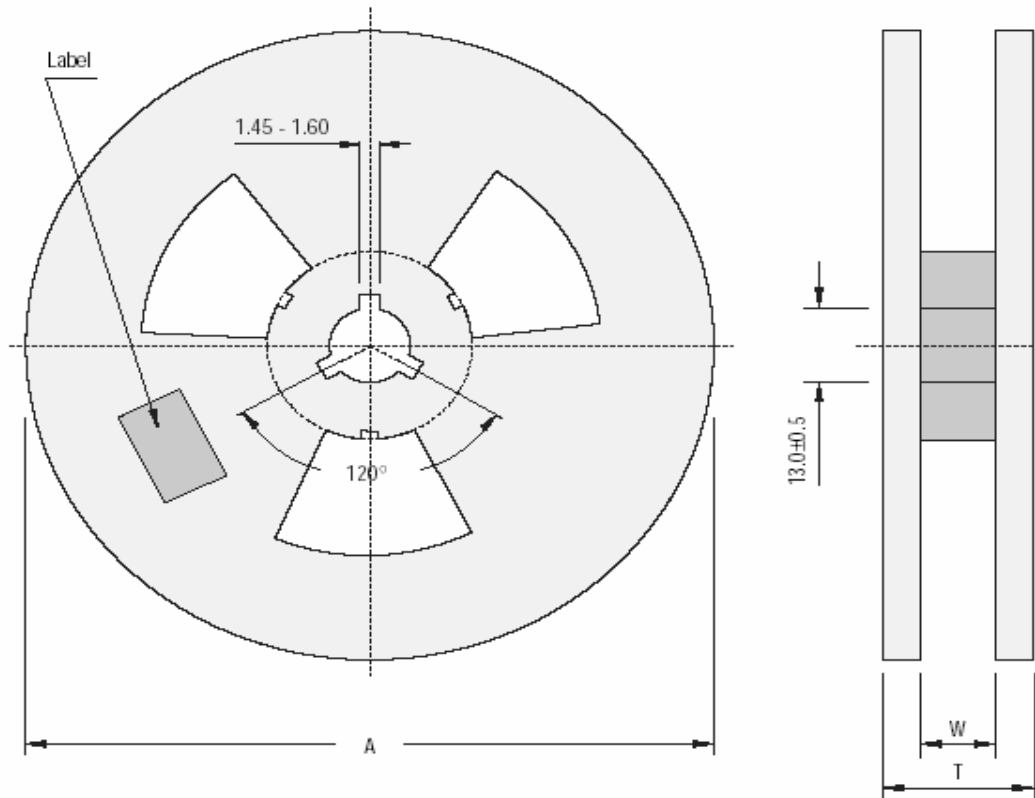
All Dimensions are in mm

Packaging Information

Package/ Case Type	Packaging Type	Std. Packing		Inner Carton		Outer Carton		
		Qty	Qty	Size L x W x H (cm)	Gross Weight (Kg)	Qty	Size L x W x H (cm)	Gross Weight (Kg)
DO-214AC (SMA)	T&R	5,000				50K	46 x 38 x 22	7.9

T & R: Tape and Reel

Reel Dimensions and Components/Reel for SMD Package



Reel Specifications

Package	Tape Width	Reel Dia. A - Max	Inside Thickness W	Reel Thickness T - max
DO-214AC (SMA)	12	330	12.4 ± 2	18.4

All Dimensions are in mm

Components Disposal Instructions

1. CDIL Semiconductor Devices are non-recyclable RoHS free material, customers are requested to please dispose as per prevailing Environmental Legislation of their Country.
2. In Europe, please dispose as per EU Directive 2002/96/EC on Waste Electrical and Electronic Equipment (WEEE).

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Continental Device India Limited

C-120 Naraina Industrial Area, New Delhi 110 028, India.

Telephone + 91-11-2579 6150, 4141 1112 Fax + 91-11-2579 5290, 4141 1119

email@cdil.com www.cdilsemi.com