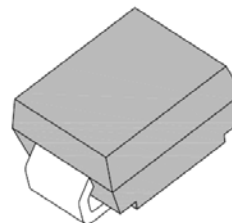


## 3W Surface Mount Zener Diodes

### Features

- Low profile package
- Built-in strain relief
- Glass passivated junction
- Low inductance
- Complete voltage range 3.3 to 200V
- High peak reverse power dissipation
- High temperature soldering guaranteed: 260°C/10 seconds at terminals
- Low leakage current
- Flat handling surface for accurate placement
- RoHS compliant



SMB  
(DO-214AA)



### Mechanical Data

<b>Case:</b>	JEDEC SMB (DO-214AA), molded plastic over passivated junction
<b>Epoxy:</b>	Plastic package has UL flammability classification 94V-0
<b>Terminals:</b>	Modified L-Bend providing more contact area to bond pads
<b>Polarity:</b>	Color band denotes cathode end
<b>Weight:</b>	0.003 ounce, 0.093 gram

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

Symbol	Description	Value	Unit	Conditions
<b>P<sub>D</sub></b>	Max. Steady State Power Dissipation, Measured at Zero Lead Length	3	W	T <sub>L</sub> =75°C
	Derate above 75°C	40	mW/°C	
<b>R<sub>thJL</sub></b>	Thermal Resistance From Junction to Lead	25	°C/W	
<b>P<sub>D</sub></b>	Max. Steady State Power Dissipation, Measured within 1" to Device	550	mW	T <sub>A</sub> =25°C
	Derate above 25°C	4.4	mW/°C	
<b>R<sub>thJA</sub></b>	Thermal Resistance From Junction to Ambient	226	°C/W	
<b>V<sub>F</sub></b>	Max. Forward Voltage	1.5	V	I <sub>F</sub> =200mA, T <sub>L</sub> =30°C
<b>T<sub>J</sub>, T<sub>STG</sub></b>	Operating Junction and Storage Temperature Range	-65 to 150	°C	

# 3W Surface Mount Zener Diodes

## Z3SMB5913B - Z3SMB5956B

### Electrical Characteristics ( $T_L=30^\circ\text{C}$ unless noted otherwise)

Part NO.	Marking Code	Nominal Zener Voltage @ I <sub>ZT</sub>				Max. Zener Impedance (Ω)			Max. Reverse Leakage Current I <sub>R</sub> @ V <sub>R</sub>		Max. DC Zener Current
		V <sub>Z</sub> (V)			I <sub>ZT</sub> (mA)	Z <sub>ZT</sub> @ I <sub>ZT</sub>	Z <sub>ZK</sub> @ I <sub>ZK</sub>	I <sub>ZK</sub> (mA)	I <sub>R</sub> (μA)	V <sub>R</sub> (V)	I <sub>ZM</sub> (mA)
		Min.	Nom.	Max.							
Z3SMB5913B	913B	3.13	3.3	3.47	113.6	10	500	1.0	100	1	454
Z3SMB5914B	914B	3.42	3.6	3.78	104.2	9	500	1.0	75	1	416
Z3SMB5915B	915B	3.70	3.9	4.10	96.1	7.5	500	1.0	25	1	384
Z3SMB5916B	916B	4.08	4.3	4.52	87.2	6	500	1.0	5	1	348
Z3SMB5917B	917B	4.46	4.7	4.94	79.8	5	500	1.0	5	1.5	319
Z3SMB5918B	918B	4.84	5.1	5.36	73.5	4	350	1.0	5	2	294
Z3SMB5919B	919B	5.32	5.6	5.88	66.9	2	250	1.0	5	3	267
Z3SMB5920B	920B	5.89	6.2	6.51	60.5	2	200	1.0	5	4	241
Z3SMB5921B	921B	6.46	6.8	7.14	55.1	2.5	200	1.0	5	5.2	220
Z3SMB5922B	922B	7.12	7.5	7.88	50.0	3	400	0.5	5	6	200
Z3SMB5923B	923B	7.79	8.2	8.61	45.7	3.5	400	0.5	5	6.5	182
Z3SMB5924B	924B	8.64	9.1	9.56	41.2	4	500	0.5	5	7	164
Z3SMB5925B	925B	9.50	10	10.5	37.5	4.5	500	0.25	5	8	150
Z3SMB5926B	926B	10.45	11	11.55	34.1	5.5	550	0.25	5	8.4	136
Z3SMB5927B	927B	11.40	12	12.6	31.2	6.5	550	0.25	1	9.1	125
Z3SMB5928B	928B	12.35	13	13.65	28.8	7	550	0.25	1	9.9	115
Z3SMB5929B	929B	14.25	15	15.75	25.0	9	600	0.25	1	11.4	100
Z3SMB5930B	930B	15.20	16	16.8	23.4	10	600	0.25	1	12.2	93
Z3SMB5931B	931B	17.10	18	18.9	20.8	12	650	0.25	1	13.7	83
Z3SMB5932B	932B	19.00	20	21	18.7	14	650	0.25	1	15.2	75
Z3SMB5933B	933B	20.90	22	23.1	17.0	17.5	650	0.25	1	16.7	68
Z3SMB5934B	934B	22.80	24	25.2	15.6	19	700	0.25	1	18.2	62
Z3SMB5935B	935B	25.65	27	28.35	13.9	23	700	0.25	1	20.6	55
Z3SMB5936B	936B	28.50	30	31.5	12.5	26	750	0.25	1	22.8	50
Z3SMB5937B	937B	31.35	33	34.65	11.4	33	800	0.25	1	25.1	45
Z3SMB5938B	938B	34.20	36	37.8	10.4	38	850	0.25	1	27.4	41
Z3SMB5939B	939B	37.05	39	40.95	9.6	45	900	0.25	1	29.7	38
Z3SMB5940B	940B	40.85	43	45.15	8.7	53	950	0.25	1	32.7	34
Z3SMB5941B	941B	44.65	47	49.35	8.0	67	1000	0.25	1	35.8	31

# 3W Surface Mount Zener Diodes

## Z3SMB5913B - Z3SMB5956B

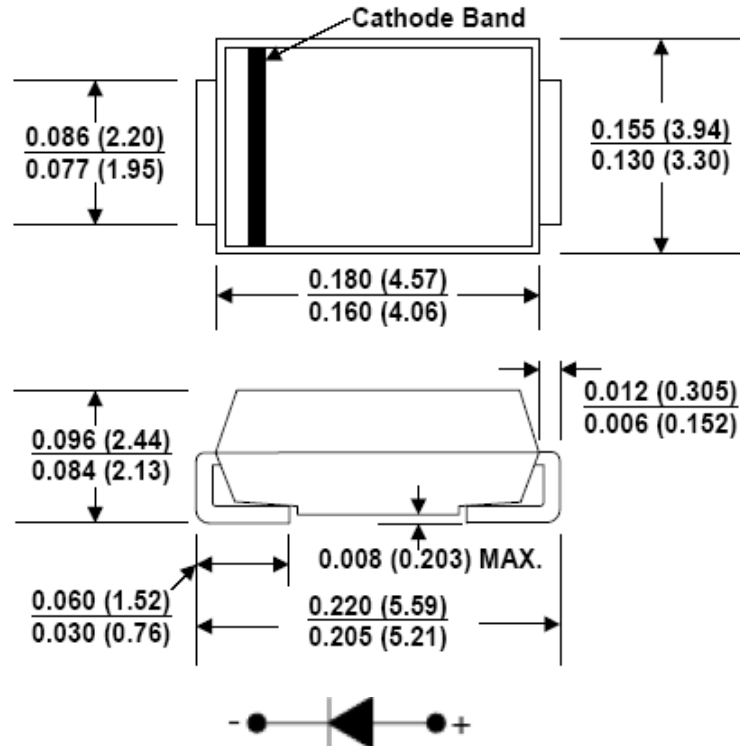
Part NO.	Marking Code	Nominal Zener Voltage @ I <sub>ZT</sub>				Max. Zener Impedance (Ω)			Max. Reverse Leakage Current IR @ VR		Max. DC Zener Current
		V <sub>Z</sub> (V)			I <sub>ZT</sub> (mA)	Z <sub>ZT</sub> @ I <sub>ZT</sub>	I <sub>ZM</sub> (mA)	I <sub>ZK</sub> (mA)	I <sub>R</sub> (μA)	V <sub>R</sub> (V)	I <sub>ZM</sub> (mA)
		Min.	Nom.	Max.							
Z3SMB5942B	942B	48.45	51	53.55	7.3	70	1100	0.25	1	38.8	29
Z3SMB5943B	943B	53.2	56	58.8	6.7	86	1300	0.25	1	42.6	26
Z3SMB5944B	944B	58.9	62	65.1	6.0	100	1500	0.25	1	47.1	24
Z3SMB5945B	945B	64.6	68	71.4	5.5	120	1700	0.25	1	51.7	22
Z3SMB5946B	946B	71.25	75	78.75	5.0	140	2000	0.25	1	56	20
Z3SMB5947B	947B	77.9	82	86.1	4.6	160	2500	0.25	1	62.2	18
Z3SMB5948B	948B	86.45	91	95.55	4.1	200	3000	0.25	1	69.2	16
Z3SMB5949B	949B	95	100	105	3.7	250	3100	0.25	1	76	15
Z3SMB5950B	950B	104.5	110	115.5	3.4	300	4000	0.25	1	83.6	13
Z3SMB5951B	951B	114	120	126	3.1	380	4500	0.25	1	91.2	12
Z3SMB5952B	952B	123.5	130	136.5	2.9	450	5000	0.25	1	98.8	11
Z3SMB5953B	953B	142.5	150	157.5	2.5	600	6000	0.25	1	114	10
Z3SMB5954B	954B	152	160	168	2.3	700	6500	0.25	1	121.6	9
Z3SMB5955B	955B	171	180	189	2.1	900	7000	0.25	1	136.8	8
Z3SMB5956B	956B	190	200	210	1.9	1200	8000	0.25	1	152	7

**Note:** Suffix "B" indicates ±5% tolerance.

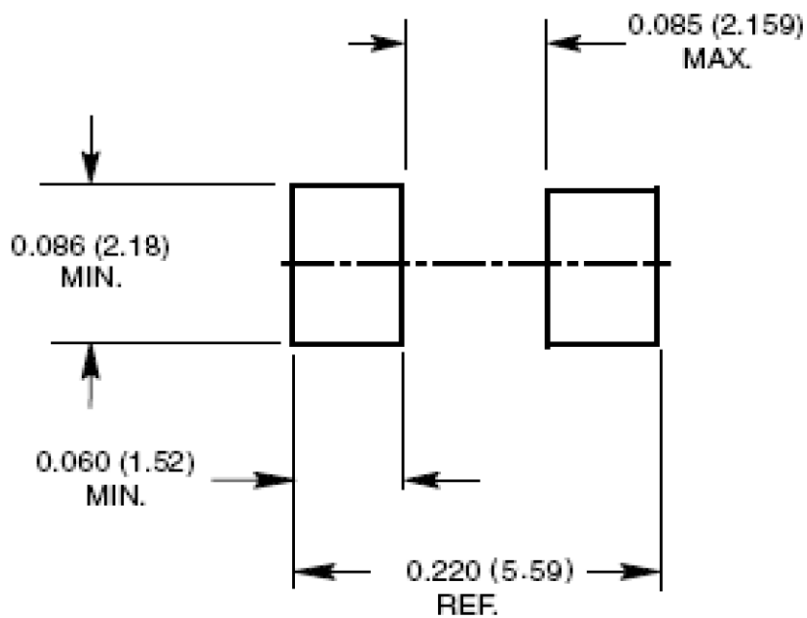
# 3W Surface Mount Zener Diodes

## Z3SMB5913B - Z3SMB5956B

### Dimensions in inch (mm)



### Soldering Pad in inch (mm)



SMB (DO-214AA)

# 3W Surface Mount Zener Diodes

## Z3SMB5913B - Z3SMB5956B

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