

# SMBJ5913 THRU SMBJ5956

## ZENER DIODES

Zener Voltage: 3.3-200V

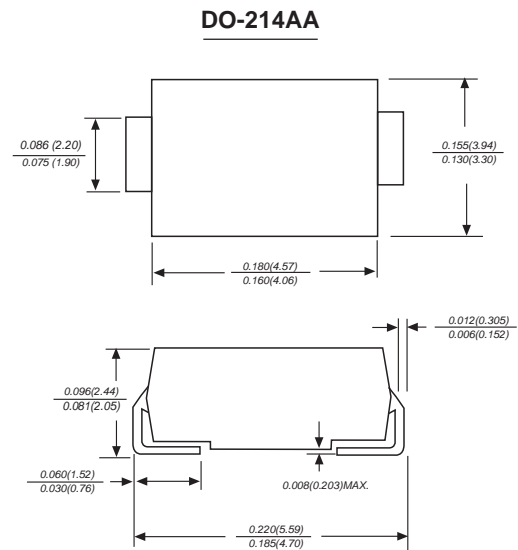
Peak Pulse Power: 3.0W

## Features

- Surface Mount Applications
- 3.3 thru 200 Volt Voltage Range
- Ideal For High Density, Low Profile Mounting
- Withstands Large Surge Stresses
- Available on Tape and Reel

## Mechanical Data

- CASE: JEDEC DO-214AA molded Surface Mountable
- Terminals solderable per MIL-STD-750, Method 2026
- Polarity is indicated by cathode band
- Packaging: Standard 12mm Tape (see EIA 481)
- Maximum temperature for soldering: 260°C for 10 seconds
- For surface mount applications with flame retardent epoxy Meeting UL94V-0



Dimensions in inches and (millimeters)

## Maximum Ratings @ 25°C

Steady State Power Dissipation	$P_{(AV)}$	3.0W	(Note:1)
Operation And Storage Temperature	$T_J, T_{STG}$	-55°C to +150°C	
Thermal Resistance	R	25°C/W	

### NOTE:

1. Mounted on 4.0mm<sup>2</sup> copper pads to each terminal.  
Lead temperature at  $T_L=75^\circ\text{C}$

# SMBJ5913 thru SMBJ5956

## Electrical Characteristics @ 25°C

NUMBER	ZENER VOLTAGE	TEST CURRENT	MAXIMUM DYNAMIC IMPEDANCE	KNEE CURRENT	KNEE IMPEDANCE	MAXIMUM REVERSE CURRENT	REVERSE VOLTAGE V <sub>R</sub>	MAXIMUM DC CURRENT
	V <sub>Z</sub>	I <sub>ZT</sub>	Z <sub>ZT@I<sub>ZT</sub></sub>	I <sub>ZK</sub>	Z <sub>ZK</sub>	I <sub>R</sub>	VOLTS	I <sub>ZM</sub>
	VOLTS	mA	OHMS	mA	OHMS	uA		mA
SMBJ5913	3.3	113.6	10	1.0	500	100	1.0	454
SMBJ5914	3.6	104.2	9.0	1.0	500	75	1.0	416
SMBJ5915	3.9	96.1	7.5	1.0	500	25	1.0	384
SMBJ5916	4.3	87.2	6.0	1.0	500	5.0	1.0	348
SMBJ5917	4.7	79.8	5.0	1.0	500	5.0	1.5	319
SMBJ5918	5.1	73.5	4.0	1.0	350	5.0	2.0	294
SMBJ5919	5.6	66.9	2.0	1.0	250	5.0	3.0	267
SMBJ5920	6.2	60.5	2.0	1.0	200	5.0	4.0	241
SMBJ5921	6.8	55.1	2.5	1.0	200	5.0	5.2	220
SMBJ5922	7.5	50	3.0	0.5	400	5.0	6.0	200
SMBJ5923	8.2	45.7	3.5	0.5	400	5.0	6.5	182
SMBJ5924	9.1	41.2	4.0	0.5	500	5.0	7.0	164
SMBJ5925	10	37.5	4.5	0.25	500	5.0	8.0	150
SMBJ5926	11	34.1	5.5	0.25	550	1.0	8.4	125
SMBJ5927	12	31.2	6.5	0.25	550	1.0	9.1	125
SMBJ5928	13	28.8	7.0	0.25	550	1.0	9.9	115
SMBJ5929	15	25	9.0	0.25	600	1.0	11.4	100
SMBJ5930	16	23.4	10	0.25	600	1.0	12.2	93
SMBJ5931	18	20.8	12	0.25	650	1.0	13.7	83
SMBJ5932	20	18.7	14	0.25	650	1.0	15.2	75
SMBJ5933	22	17	17.5	0.25	650	1.0	16.7	68
SMBJ5934	24	15.6	19	0.25	700	1.0	18.2	62
SMBJ5935	27	13.9	23	0.25	700	1.0	20.6	55
SMBJ5936	30	12.5	28	0.25	750	1.0	22.8	50
SMBJ5937	33	11.4	33	0.25	800	1.0	25.1	45
SMBJ5938	36	10.4	38	0.25	850	1.0	27.4	41
SMBJ5939	39	9.6	45	0.25	900	1.0	29.7	38
SMBJ5940	43	8.7	53	0.25	950	1.0	32.7	34
SMBJ5941	47	8.0	67	0.25	1000	1.0	35.8	31
SMBJ5942	51	7.3	70	0.25	1100	1.0	38.8	29
SMBJ5943	56	6.7	86	0.25	1300	1.0	42.6	26
SMBJ5944	62	6.0	100	0.25	1500	1.0	47.1	24
SMBJ5945	68	5.5	120	0.25	1700	1.0	51.2	22
SMBJ5946	75	5.0	140	0.25	2000	1.0	56	20
SMBJ5947	82	4.6	160	0.25	2500	1.0	62.2	18
SMBJ5948	91	4.1	200	0.25	3000	1.0	69.2	16
SMBJ5949	100	3.7	250	0.25	3100	1.0	76	15
SMBJ5950	110	3.4	300	0.25	4000	1.0	83.6	13
SMBJ5951	120	3.1	380	0.25	4500	1.0	91.2	12
SMBJ5952	130	2.9	450	0.25	5000	1.0	98.8	11
SMBJ5953	150	2.5	600	0.25	6000	1.0	114	10
SMBJ5954	160	2.3	700	0.25	6500	1.0	121.6	9.0
SMBJ5955	180	2.1	900	0.25	7000	1.0	136.8	8.0
SMBJ5956	200	1.9	1200	0.25	8000	1.0	152	7.0

# RATINGD AND CHARACTEISTIC CURVES SMB5913 THRU SMB5956

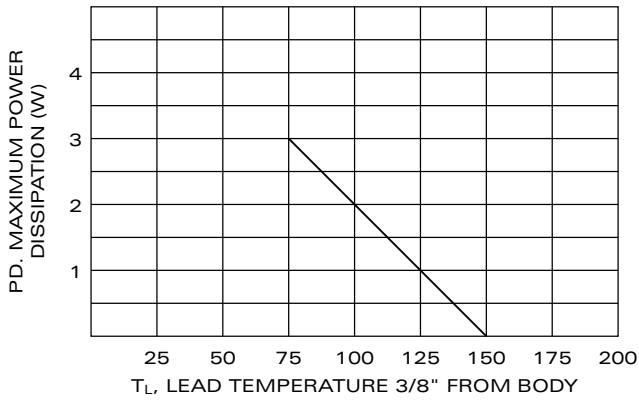


FIGURE 1.  
POWER DERATING CURVE

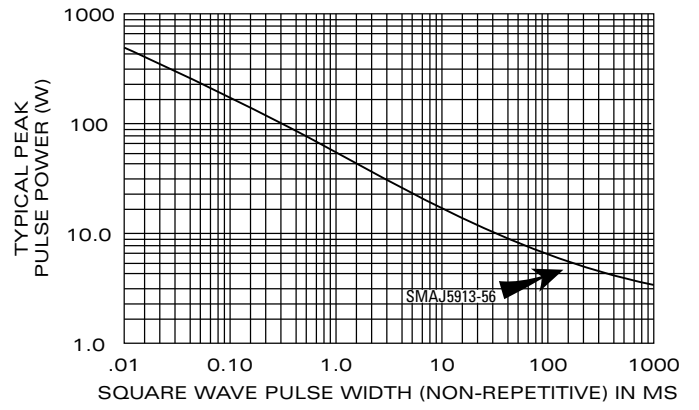


FIGURE 2.  
TRANSIENT SURGE CAPABILITY

