



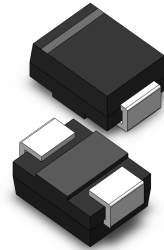
# 1SMB2EZ3V6 - 1SMB2EZ200

## SURFACE MOUNT SILICON ZENER DIODES

**VOLTAGE RANGE: 3.6 - 200V**  
**POWER: 2.0Watts**

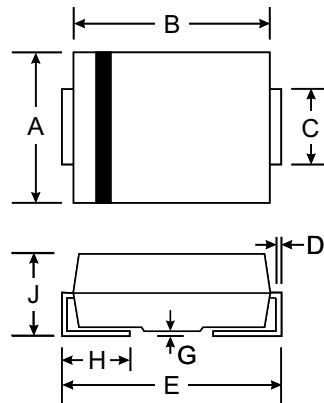
### Features

- Complete Voltage Range 3.6 to 200 Volts
- High peak reverse power dissipation
- High reliability
- Low leakage current



### Mechanical Data

- Case: SMB/DO-214AA, Molded Plastic
- Terminals: Solder Plated, Solderable per MIL-STD-750, Method 2026
- Polarity: Cathode Band or Cathode Notch
- Marking: Type Number
- Weight: 0.093 grams (approx.)



SMB(DO-214AA)		
Dim	Min	Max
A	3.30	3.94
B	4.06	4.70
C	1.91	2.21
D	0.15	0.31
E	5.00	5.59
G	0.10	0.20
H	0.76	1.52
J	2.00	2.62
All Dimensions in mm		

### Maximum Ratings $T_A = 25^\circ\text{C}$ unless otherwise specified

Rating	Symbol	Value	Unit
DC Power Dissipation at $T_L = 75^\circ\text{C}$ (Note1)	$P_D$	2.0	Watts
Maximum Forward Voltage at $I_F = 200\text{ mA}$	$V_F$	1.2	Volts
Maximum Thermal Resistance Junction to Ambient Air (Note2)	$R_{\theta JA}$	60	K / W
Junction Temperature Range	$T_J$	- 55 to + 175	$^\circ\text{C}$
Storage Temperature Range	$T_s$	- 55 to + 175	$^\circ\text{C}$

**Note :**

- (1)  $T_L$  = Lead temperature at 3/8 " (9.5mm) from body
- (2) Valid provided that leads are kept at ambient temperature at a distance of 10 mm from case.



## ELECTRICAL CHARACTERISTICS Rating at = 25 °C ambient temperature unless otherwise specified

TYPE	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
	(V)	(mA)	(Ω)	(Ω)	(mA)	(μA)	(V)	(mA)
1SMB2EZ3V6	3.6	139	5.0	400	1.0	80	1.0	504
1SMB2EZ3V9	3.9	128	5.0	400	1.0	30	1.0	468
1SMB2EZ4V3	4.3	116	4.5	400	1.0	20	1.0	434
1SMB2EZ4V7	4.7	106	4.5	550	1.0	5.0	1.0	386
1SMB2EZ5V1	5.1	98.0	3.5	600	1.0	5.0	1.0	356
1SMB2EZ5V6	5.6	89.5	2.5	500	1.0	5.0	2.0	324
1SMB2EZ6V2	6.2	80.5	1.5	700	1.0	5.0	3.0	292
1SMB2EZ6V8	6.8	73.5	2.0	700	1.0	5.0	4.0	266
1SMB2EZ7V5	7.5	66.5	2.0	700	0.5	50	5.0	242
1SMB2EZ8V2	8.2	61.0	2.3	700	0.5	50	6.0	220
1SMB2EZ9V1	9.1	55.0	2.5	700	0.5	50	7.0	200
1SMB2EZ10	10	50.0	3.5	700	0.25	50	7.6	182
1SMB2EZ11	11	45.5	4.0	700	0.25	50	8.4	166
1SMB2EZ12	12	41.5	4.5	700	0.25	1.0	9.1	152
1SMB2EZ13	13	38.5	5.0	700	0.25	0.5	9.9	138
1SMB2EZ14	14	35.7	5.5	700	0.25	0.5	10.6	130
1SMB2EZ15	15	33.4	7.0	700	0.25	0.5	11.4	122
1SMB2EZ16	16	31.2	8.0	700	0.25	0.5	12.2	114
1SMB2EZ17	17	29.4	9.0	750	0.25	0.5	13.0	107
1SMB2EZ18	18	27.8	10	750	0.25	0.5	13.7	100
1SMB2EZ19	19	26.3	11	750	0.25	0.5	14.4	95
1SMB2EZ20	20	25.0	11	750	0.25	0.5	15.2	90
1SMB2EZ22	22	22.8	12	750	0.25	0.5	16.7	82
1SMB2EZ24	24	20.8	13	750	0.25	0.5	18.2	76
1SMB2EZ27	27	18.5	18	750	0.25	0.5	20.6	68
1SMB2EZ30	30	16.6	20	1000	0.25	0.5	22.5	60
1SMB2EZ33	33	15.1	23	1000	0.25	0.5	25.1	55
1SMB2EZ36	36	13.9	25	1000	0.25	0.5	27.4	50
1SMB2EZ39	39	12.8	30	1000	0.25	0.5	29.7	47
1SMB2EZ43	43	11.6	35	1500	0.25	0.5	32.7	43
1SMB2EZ47	47	10.6	40	1500	0.25	0.5	35.8	39
1SMB2EZ51	51	9.8	48	1500	0.25	0.5	38.8	36
1SMB2EZ56	56	9.0	55	2000	0.25	0.5	42.6	32
1SMB2EZ62	62	8.1	60	2000	0.25	0.5	47.1	29
1SMB2EZ68	68	7.4	75	2000	0.25	0.5	51.7	27
1SMB2EZ75	75	6.7	90	2000	0.25	0.5	56.0	24
1SMB2EZ82	82	6.1	100	3000	0.25	0.5	62.2	22
1SMB2EZ91	91	5.5	125	3000	0.25	0.5	69.2	20
1SMB2EZ100	100	5.0	175	3000	0.25	0.5	76.0	18
1SMB2EZ110	110	4.5	250	4000	0.25	0.5	83.6	17
1SMB2EZ120	120	4.2	325	4500	0.25	0.5	91.2	15
1SMB2EZ130	130	3.8	400	5000	0.25	0.5	98.8	14
1SMB2EZ140	140	3.6	500	5500	0.25	0.5	106.4	13
1SMB2EZ150	150	3.3	575	6000	0.25	0.5	114.0	12
1SMB2EZ160	160	3.1	650	6500	0.25	0.5	121.6	11
1SMB2EZ170	170	2.9	675	7000	0.25	0.5	130.4	11
1SMB2EZ180	180	2.8	725	7000	0.25	0.5	136.8	10
1SMB2EZ190	190	2.6	825	8000	0.25	0.5	144.8	10
1SMB2EZ200	200	2.5	900	8000	0.25	0.5	152.0	9.0