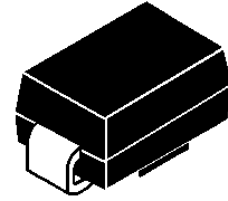




## 5W SURFACE MOUNT ZENER DIODES

### Features

- Low profile package.
- Low Zener impedance.
- High reliability chips.
- Halogen free and RoHS compliant
- Lead-free finish



SMB

### Mechanical Characteristics

- CASE: SMB(DO-214AA) Molded Plastic.
- Mounting Position: Any
- Polarity: cathode by color band
- Terminal: Solder plated

### Maximum Ratings and Characteristics @ 25°C Ambient Temperature (unless otherwise noted)

Parameter	Symbol	Value	Units
Power Dissipation @ $T_L=75^{\circ}\text{C}$	$P_D$	5	W
Thermal Resistance Junction To Ambient Air	$R_{\theta JA}$	100	$^{\circ}\text{C}/\text{W}$
Thermal Resistance Junction To Leads	$R_{\theta JL}$	25	$^{\circ}\text{C}/\text{W}$
Storage Temperature Range	$T_{STG}$	-55 to 150	$^{\circ}\text{C}$
Max Forward Voltage @ $I_F=200\text{MA}$	VF	1.2	V
Operating Junction Temperature Range	$T_J$	-55 to 150	$^{\circ}\text{C}$

# SMBJ53 Series

## Electrical Characteristics (Ratings at 25°C ambient temperature unless otherwise specified).

Part Number	Zener voltage		Test Current	Dynamic Impedance	Knee Current	Knee Impedance	Reverse Current	Reverse Voltage	Max. DC Current
	V <sub>Z</sub> /V		IZT	ZZT	IZK	ZZK	IR (Max. )	VR	IZM
	V <sub>Z</sub> (MIN)	V <sub>Z</sub> (MAX)	m A	Ω	m A	Ω	μA <sub>dc</sub>	V	m A
SMBJ5337B	4.47	4.94	260	2	1	450	50	1	1010
SMBJ5338B	4.85	5.36	240	1.5	1	400	1	1	930
SMBJ5339B	5.32	5.88	220	1	1	400	1	2	856
SMBJ5340B	5.70	6.30	200	1	1	300	1	3	790
SMBJ5341B	5.89	6.51	200	1	1	200	1	3	765
SMBJ5342B	6.46	7.14	175	1	1	200	150	5.2	700
SMBJ5343B	7.13	7.88	175	1.5	1	200	150	5.7	630
SMBJ5344B	7.79	8.61	150	1.5	1	200	150	6.2	580
SMBJ5345B	8.27	9.14	150	2	1	200	150	6.6	545
SMBJ5346B	8.65	9.56	150	2	1	150	150	6.9	520
SMBJ5347B	9.50	10.50	125	2	1	125	150	7.6	475
SMBJ5348B	10.50	11.60	125	2.5	1	125	150	8.4	430
SMBJ5349B	11.40	12.60	100	2.5	1	125	2	9.1	395
SMBJ5350B	12.40	13.70	100	2.5	1	100	1	9.9	365
SMBJ5351B	13.30	14.70	100	2.5	1	75	1	10.6	340
SMBJ5352B	14.30	15.80	75	2.5	1	75	1	11.5	315
SMBJ5353B	15.20	16.80	75	2.5	1	75	1	12.2	295
SMBJ5354B	16.20	17.90	70	2.5	1	75	0.8	12.9	280
SMBJ5355B	17.10	18.90	65	2.5	1	75	0.8	13.7	265
SMBJ5356B	18.10	20.00	65	8	1	75	0.8	14.4	250
SMBJ5357B	19.00	21.00	65	3	1	75	0.8	15.2	237
SMBJ5358B	20.90	23.10	50	3.5	1	75	0.8	16.7	216
SMBJ5359B	22.80	25.20	50	3.5	1	100	0.8	18.2	198
SMBJ5360B	23.80	26.30	50	4	1	110	0.8	19	190
SMBJ5361B	25.70	28.40	50	5	1	120	0.8	20.6	176
SMBJ5362B	26.60	29.40	50	6	1	130	0.8	21.2	170
SMBJ5363B	28.50	31.50	40	8	1	140	0.8	22.8	158
SMBJ5364B	31.40	34.70	40	10	1	150	0.8	25.1	144
SMBJ5365B	34.20	37.80	30	11	1	160	0.8	27.4	132
SMBJ5366B	37.10	41.00	30	14	1	170	0.8	29.7	122
SMBJ5367B	40.90	45.20	30	20	1	190	0.8	32.7	110
SMBJ5368B	44.70	49.40	25	25	1	210	0.8	35.8	100
SMBJ5369B	48.50	53.60	25	27	1	230	0.8	38.8	93
SMBJ5370B	53.20	58.80	20	35	1	280	0.8	42.6	86
SMBJ5371B	57.00	63.00	20	40	1	350	0.8	45.5	79

# SMBJ53 Series

SMBJ5372B	58.90	65.10	20	42	1	400	0.8	47.1	76
SMBJ5373B	64.60	71.40	20	44	1	500	0.8	51.7	70
SMBJ5374B	71.30	78.80	20	45	1	620	0.8	56	63
SMBJ5375B	77.90	86.10	15	65	1	720	0.8	62.2	58
SMBJ5376B	82.70	91.40	15	75	1	760	0.8	66	54.5
SMBJ5377B	86.50	95.60	15	75	1	760	0.8	69.2	52.5
SMBJ5378B	95.00	105.00	12	90	1	800	0.8	76	47.5
SMBJ5379B	104.50	115.50	12	125	1	1000	0.8	83.6	43
SMBJ5380B	114.00	126.00	10	170	1	1150	0.8	91.2	39.5
SMBJ5381B	123.50	136.50	10	190	1	1250	0.8	98.8	36.6
SMBJ5382B	133.00	147.00	8	230	1	1500	0.8	106	34
SMBJ5383B	142.50	157.50	8	330	1	1500	0.8	114	31.6
SMBJ5384B	152.00	168.00	8	350	1	1650	0.8	122	29.4
SMBJ5385B	161.50	178.50	8	380	1	1750	0.8	129	28
SMBJ5386B	171.00	189.00	8	430	1	1750	0.8	137	26.4
SMBJ5387B	180.50	199.50	5	450	1	1850	0.8	144	25
SMBJ5388B	190.00	210.00	5	480	1	1850	0.8	152	23.6

## Typical Characteristics

Fig. 1 - Power Derating Curve

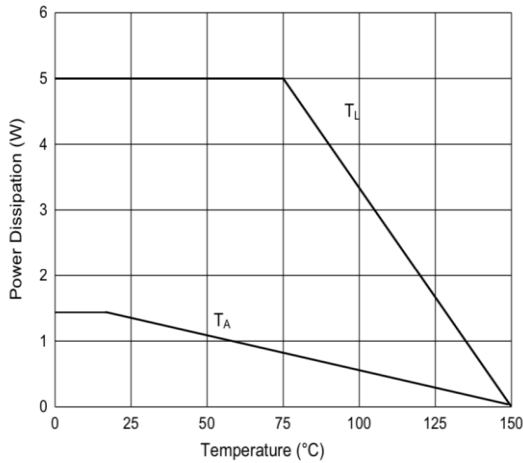
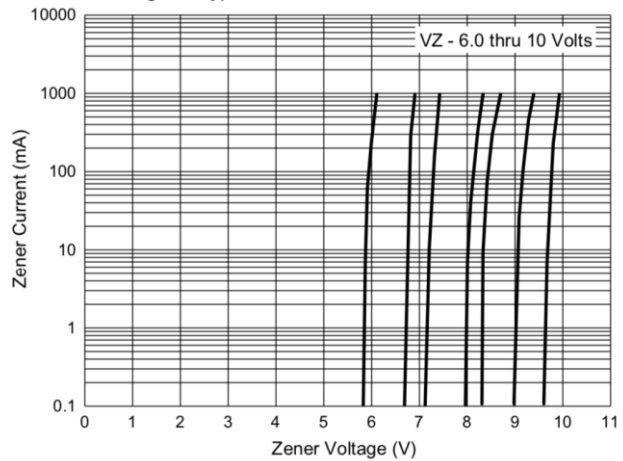


Fig. 2 - Typical Zener Breakdown Characteristics



# SMBJ53 Series

Fig. 3 - Typical Zener Breakdown Characteristics

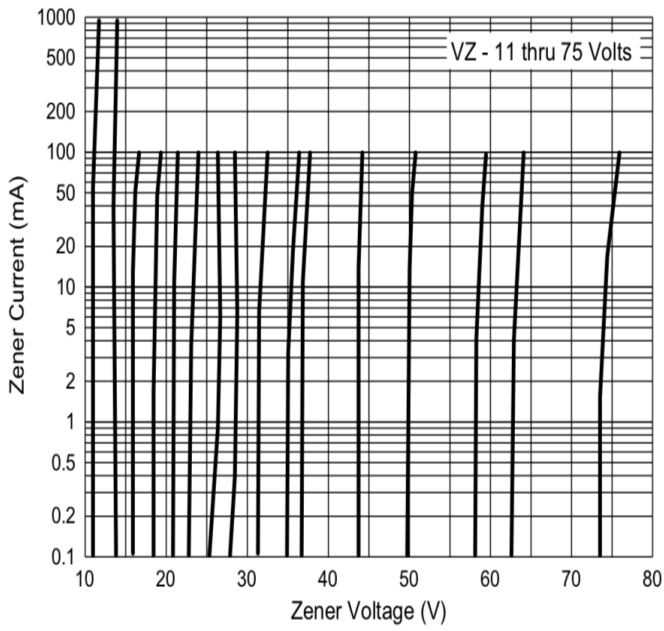
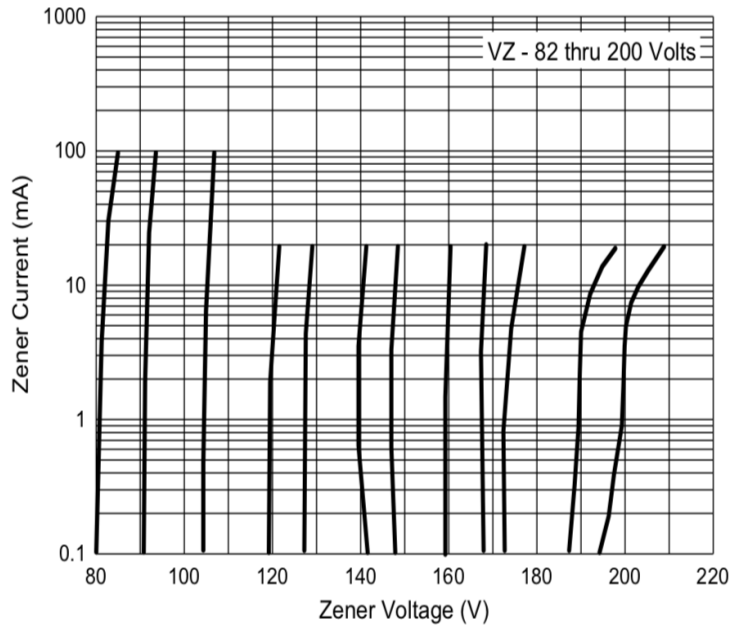
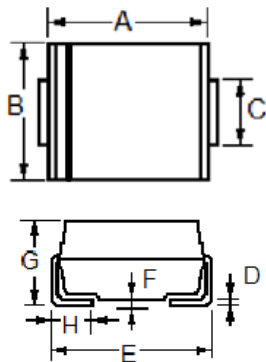


Fig. 4 - Typical Zener Breakdown Characteristics



## Package Outline Dimensions

### DO-214AA (SMB)



Dim	Millimeters		Inches	
	Min	Max	Min	Max
A	4.06	4.57	0.160	0.180
B	3.30	3.94	0.130	0.155
C	1.95	2.20	0.077	0.086
D	0.125	0.305	0.006	0.012
E	5.21	5.59	0.205	0.220
F	---	0.203	---	0.008
G	2.13	2.44	0.084	0.096
H	0.76	1.52	0.030	0.060