

# SMBJ53 Series

# SURFACE MOUNT SILICON ZENER DIODES

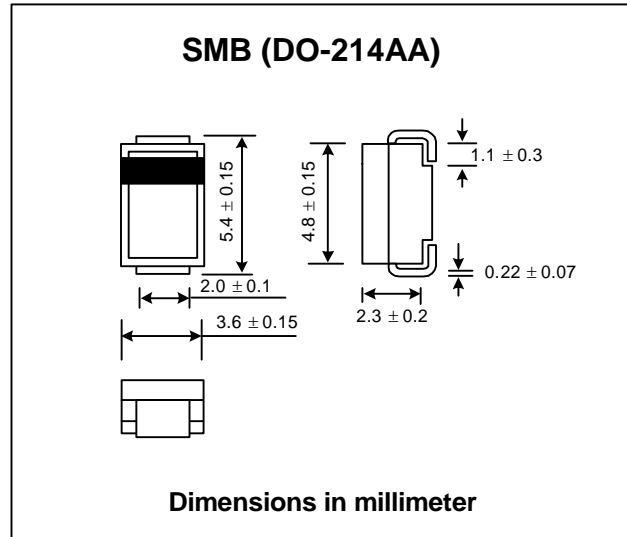
**V<sub>z</sub> : 3.3 - 200 Volts**  
**P<sub>D</sub> : 5 Watts**

### FEATURES :

- \* Complete Voltage Range 3.3 to 200 Volts
- \* High peak reverse power dissipation
- \* High reliability
- \* Low leakage current
- \* Pb / RoHS Free

### MECHANICAL DATA

- \* Case : SMB (DO-214AA) Molded plastic
- \* Epoxy : UL94V-O rate flame retardant
- \* Lead : Lead formed for Surface mount
- \* Polarity : Color band denotes cathode end
- \* Mounting position : Any
- \* Weight : 0.093 gram



### MAXIMUM RATINGS

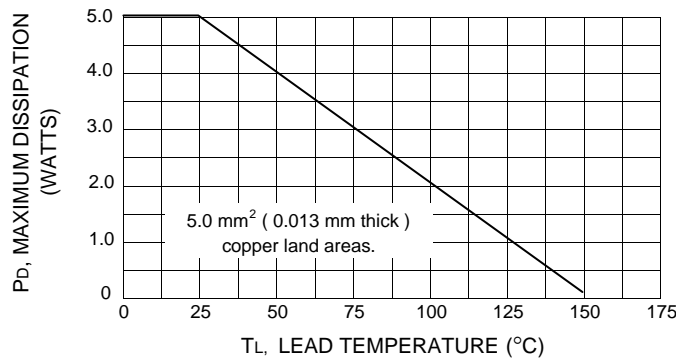
Rating at 25 °C ambient temperature unless otherwise specified

Rating	Symbol	Value	Unit
DC Power Dissipation at T <sub>L</sub> = 75 °C (Note1)	P <sub>D</sub>	5.0	W
Maximum Forward Voltage at I <sub>F</sub> = 200 mA	V <sub>F</sub>	1.2	V
Junction Temperature Range	T <sub>J</sub>	- 55 to + 150	°C
Storage Temperature Range	T <sub>s</sub>	- 55 to + 150	°C

**Note :**

(1) T<sub>L</sub> = Lead temperature at 5.0 mm<sup>2</sup> ( 0.013 mm thick ) copper land areas

**Fig. 1 POWER TEMPERATURE DERATING CURVE**



## 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)
SMBJ5333A	3.3	380	3.0	400	1.0	300	1.0	1440
SMBJ5334A	3.6	350	2.5	500	1.0	150	1.0	1320
SMBJ5335A	3.9	320	2.0	500	1.0	50	1.0	1220
SMBJ5336A	4.3	290	2.0	500	1.0	10	1.0	1100
SMBJ5337A	4.7	260	2.0	450	1.0	5.0	1.0	1010
SMBJ5338A	5.1	240	1.5	400	1.0	1.0	1.0	930
SMBJ5339A	5.6	220	1.0	400	1.0	1.0	2.0	856
SMBJ5340A	6.0	200	1.0	300	1.0	1.0	3.0	790
SMBJ5341A	6.2	200	1.0	200	1.0	1.0	4.0	765
SMBJ5342A	6.8	175	1.0	200	1.0	10	4.9	700
SMBJ5343A	7.5	175	1.0	200	1.0	10	5.4	630
SMBJ5344A	8.2	150	1.0	200	1.0	10	5.9	580
SMBJ5345A	8.7	150	1.0	200	1.0	10	6.3	545
SMBJ5346A	9.1	150	2.0	150	1.0	7.5	6.6	520
SMBJ5347A	10	125	2.0	125	1.0	5.0	7.2	475
SMBJ5348A	11	125	2.0	125	1.0	5.0	8.0	430
SMBJ5349A	12	100	2.5	125	1.0	2.0	8.6	395
SMBJ5350A	13	100	2.5	100	1.0	1.0	9.4	365
SMBJ5351A	14	100	2.5	75	1.0	1.0	10.1	340
SMBJ5352A	15	75	2.5	75	1.0	1.0	10.8	315
SMBJ5353A	16	75	2.5	75	1.0	1.0	11.5	295
SMBJ5354A	17	70	2.5	75	1.0	0.5	12.2	280
SMBJ5355A	18	65	2.5	75	1.0	0.5	13.0	265
SMBJ5356A	19	65	3.0	75	1.0	0.5	13.7	250
SMBJ5357A	20	65	3.0	75	1.0	0.5	14.4	237
SMBJ5358A	22	50	3.5	75	1.0	0.5	15.8	216
SMBJ5359A	24	50	3.5	100	1.0	0.5	17.3	198
SMBJ5360A	25	50	4.0	110	1.0	0.5	18.0	190
SMBJ5361A	27	50	5.0	120	1.0	0.5	19.4	176
SMBJ5362A	28	50	6.0	130	1.0	0.5	20.1	170
SMBJ5363A	30	40	8.0	140	1.0	0.5	21.6	158
SMBJ5364A	33	40	10	150	1.0	0.5	23.8	144
SMBJ5365A	36	30	11	160	1.0	0.5	25.9	132
SMBJ5366A	39	30	14	170	1.0	0.5	28.1	122
SMBJ5367A	43	30	20	190	1.0	0.5	31.0	110
SMBJ5368A	47	25	25	210	1.0	0.5	33.8	100
SMBJ5369A	51	25	27	230	1.0	0.5	36.7	93.0
SMBJ5370A	56	20	35	280	1.0	0.5	40.3	86.0
SMBJ5371A	60	20	40	350	1.0	0.5	43.0	79.0
SMBJ5372A	62	20	42	400	1.0	0.5	44.6	76.0
SMBJ5373A	68	20	44	500	1.0	0.5	49.0	70.0
SMBJ5374A	75	20	45	620	1.0	0.5	54.0	63.0
SMBJ5375A	82	15	65	720	1.0	0.5	59.0	58.0
SMBJ5376A	87	15	75	760	1.0	0.5	63.0	54.5
SMBJ5377A	91	15	75	760	1.0	0.5	65.5	52.5
SMBJ5378A	100	12	90	800	1.0	0.5	72.0	47.5
SMBJ5379A	110	12	125	1000	1.0	0.5	79.2	43.0
SMBJ5380A	120	10	170	1150	1.0	0.5	86.4	39.5
SMBJ5381A	130	10	190	1250	1.0	0.5	93.2	36.6
SMBJ5382A	140	8.0	230	1500	1.0	0.5	101	34.0
SMBJ5383A	150	8.0	330	1500	1.0	0.5	108	31.6
SMBJ5384A	160	8.0	350	1650	1.0	0.5	115	29.4
SMBJ5385A	170	8.0	380	1750	1.0	0.5	122	28.0
SMBJ5386A	180	5.0	430	1750	1.0	0.5	130	26.4
SMBJ5387A	190	5.0	450	1850	1.0	0.5	137	25.0
SMBJ5388A	200	5.0	480	1850	1.0	0.5	144	23.6

Note :

(1) Suffix " A " indicates ± 10% tolerance, suffix " B " indicates ± 5% tolerance.