

SMBJ53 Series

SURFACE MOUNT SILICON ZENER DIODES

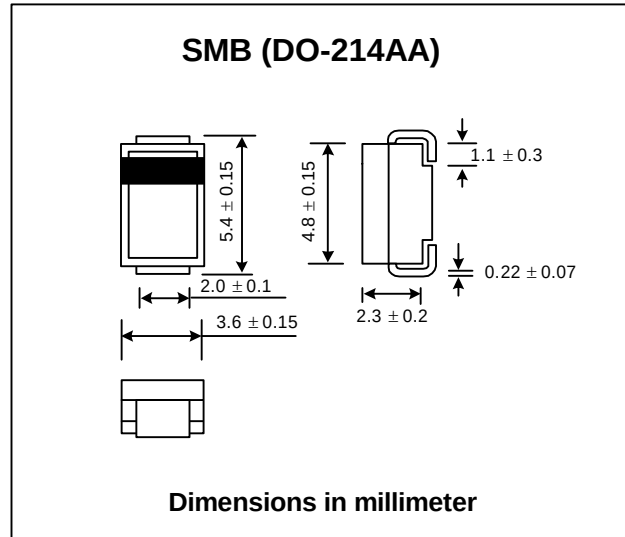
V_z : 3.3 - 200 Volts
 P_D : 5 Watts

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

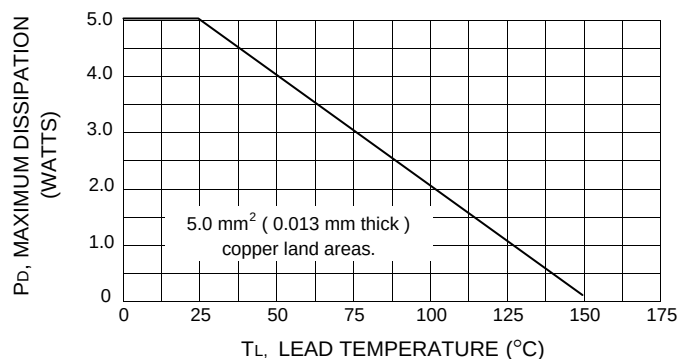
Rating at 25 °C ambient temperature unless otherwise specified

Rating	Symbol	Value	Unit
DC Power Dissipation at $T_L = 75\text{ °C}$ (Note1)	P_D	5.0	W
Maximum Forward Voltage at $I_F = 200\text{ mA}$	V_F	1.2	V
Junction Temperature Range	T_J	- 55 to + 150	°C
Storage Temperature Range	T_S	- 55 to + 150	°C

Note :

(1) T_L = Lead temperature at 5.0 mm^2 (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
	V _Z @ I _{ZT}	I _{ZT}	Z _{ZT} @ I _{ZT}	Z _{ZK} @ I _{ZK}	I _{ZK}	I _R @ V _R		I _{ZM}
	(V)	(mA)	(Ω)	(Ω)	(mA)	(μA)	(V)	(mA)
SMBJ5333B	3.3	380	3.0	400	1.0	300	1.0	1440
SMBJ5334B	3.6	350	2.5	500	1.0	150	1.0	1320
SMBJ5335B	3.9	320	2.0	500	1.0	50	1.0	1220
SMBJ5336B	4.3	290	2.0	500	1.0	10	1.0	1100
SMBJ5337B	4.7	260	2.0	450	1.0	5.0	1.0	1010
SMBJ5338B	5.1	240	1.5	400	1.0	1.0	1.0	930
SMBJ5339B	5.6	220	1.0	400	1.0	1.0	2.0	856
SMBJ5340B	6.0	200	1.0	300	1.0	1.0	3.0	790
SMBJ5341B	6.2	200	1.0	200	1.0	1.0	4.0	765
SMBJ5342B	6.8	175	1.0	200	1.0	10	4.9	700
SMBJ5343B	7.5	175	1.0	200	1.0	10	5.4	630
SMBJ5344B	8.2	150	1.0	200	1.0	10	5.9	580
SMBJ5345B	8.7	150	1.0	200	1.0	10	6.3	545
SMBJ5346B	9.1	150	2.0	150	1.0	7.5	6.6	520
SMBJ5347B	10	125	2.0	125	1.0	5.0	7.2	475
SMBJ5348B	11	125	2.0	125	1.0	5.0	8.0	430
SMBJ5349B	12	100	2.5	125	1.0	2.0	8.6	395
SMBJ5350B	13	100	2.5	100	1.0	1.0	9.4	365
SMBJ5351B	14	100	2.5	75	1.0	1.0	10.1	340
SMBJ5352B	15	75	2.5	75	1.0	1.0	10.8	315
SMBJ5353B	16	75	2.5	75	1.0	1.0	11.5	295
SMBJ5354B	17	70	2.5	75	1.0	0.5	12.2	280
SMBJ5355B	18	65	2.5	75	1.0	0.5	13.0	265
SMBJ5356B	19	65	3.0	75	1.0	0.5	13.7	250
SMBJ5357B	20	65	3.0	75	1.0	0.5	14.4	237
SMBJ5358B	22	50	3.5	75	1.0	0.5	15.8	216
SMBJ5359B	24	50	3.5	100	1.0	0.5	17.3	198
SMBJ5360B	25	50	4.0	110	1.0	0.5	18.0	190
SMBJ5361B	27	50	5.0	120	1.0	0.5	19.4	176
SMBJ5362B	28	50	6.0	130	1.0	0.5	20.1	170
SMBJ5363B	30	40	8.0	140	1.0	0.5	21.6	158
SMBJ5364B	33	40	10	150	1.0	0.5	23.8	144
SMBJ5365B	36	30	11	160	1.0	0.5	25.9	132
SMBJ5366B	39	30	14	170	1.0	0.5	28.1	122
SMBJ5367B	43	30	20	190	1.0	0.5	31.0	110
SMBJ5368B	47	25	25	210	1.0	0.5	33.8	100
SMBJ5369B	51	25	27	230	1.0	0.5	36.7	93.0
SMBJ5370B	56	20	35	280	1.0	0.5	40.3	86.0
SMBJ5371B	60	20	40	350	1.0	0.5	43.0	79.0
SMBJ5372B	62	20	42	400	1.0	0.5	44.6	76.0
SMBJ5373B	68	20	44	500	1.0	0.5	49.0	70.0
SMBJ5374B	75	20	45	620	1.0	0.5	54.0	63.0
SMBJ5375B	82	15	65	720	1.0	0.5	59.0	58.0
SMBJ5376B	87	15	75	760	1.0	0.5	63.0	54.5
SMBJ5377B	91	15	75	760	1.0	0.5	65.5	52.5
SMBJ5378B	100	12	90	800	1.0	0.5	72.0	47.5
SMBJ5379B	110	12	125	1000	1.0	0.5	79.2	43.0
SMBJ5380B	120	10	170	1150	1.0	0.5	86.4	39.5
SMBJ5381B	130	10	190	1250	1.0	0.5	93.2	36.6
SMBJ5382B	140	8.0	230	1500	1.0	0.5	101	34.0
SMBJ5383B	150	8.0	330	1500	1.0	0.5	108	31.6
SMBJ5384B	160	8.0	350	1650	1.0	0.5	115	29.4
SMBJ5385B	170	8.0	380	1750	1.0	0.5	122	28.0
SMBJ5386B	180	5.0	430	1750	1.0	0.5	130	26.4
SMBJ5387B	190	5.0	450	1850	1.0	0.5	137	25.0
SMBJ5388B	200	5.0	480	1850	1.0	0.5	144	23.6

Note :

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