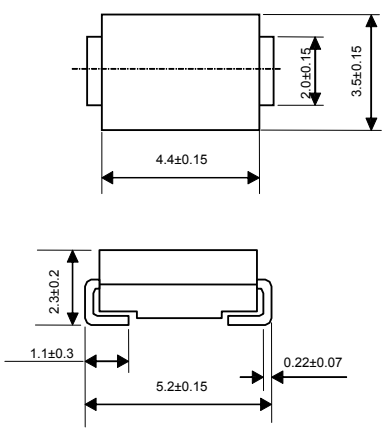
SMB5342 THRU SMB5388

5 W SURFACE MOUNT SILICON ZENER DIODES

Features

- Zener impedance at low current is small
- High reliability

SMB / DO-214AA



Dimensions in millimeters

Mechanical Data

- Case: SMB (DO-214AA) molded plastic
- Epoxy: UL 94V-0 rate flame retardant
- Terminals: Solder plated solderable per MIL-STD-750 method 2025
- Polarity: color band denotes cathode end
- Mounting position: Any

Maximum Ratings and Electrical Characteristics

Ratings at 25 °C ambient temperature unless otherwise specified. Single phase, half wave, 60 Hz, resistive or inductive load. For capacitive load, derate current by 20%.

Parameter	Symbol	Value	Unit
Power Dissipation	P_{tot}	5 [1)]	W
Thermal Resistance Junction to Ambient	$R_{\theta JA}$	20	°C/W
Maximum Forward Voltage at I_F = 1 A	V_F	1.2	V
Operating Temperature Range	T_j	- 50 to + 150	°C
Storage Temperature Range	T_S	- 50 to + 175	°C

[1)] Thermal resistance from junction to terminal mounted on 5 X 5 mm copper pad area.

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Type	Zener Voltage Range [1]		Maximum Zener Impedance			Maximum Reverse Current		Maximum DC Zener Current
	V_{Znom}	I_{ZT}	Z_{ZT}	Z_{ZK} at I_{ZK}	I_{ZK}	I_R at V_R	V_R	
	V	mA	Ω	Ω	mA	μA	V	I_{ZM} (mA)
SMB5342	6.8	175	1	200	1	10	4.9	700
SMB5343	7.5	175	1.5	200	1	10	5.4	630
SMB5344	8.2	150	1.5	200	1	10	5.9	580
SMB5345	8.7	150	2	200	1	10	6.3	545
SMB5346	9.1	150	2	150	1	7.5	6.6	520
SMB5347	10	125	2	125	1	5	7.2	475
SMB5348	11	125	2.5	125	1	5	8	430
SMB5349	12	100	2.5	125	1	2	8.6	395
SMB5350	13	100	2.5	100	1	1	9.4	365
SMB5351	14	100	2.5	75	1	1	10.1	340
SMB5352	15	75	2.5	75	1	1	10.8	315
SMB5353	16	75	2.5	75	1	1	11.5	295
SMB5354	17	70	2.5	75	1	0.5	12.2	280
SMB5355	18	65	2.5	75	1	0.5	13	265
SMB5356	19	65	3	75	1	0.5	13.7	250
SMB5357	20	65	3	75	1	0.5	14.4	237
SMB5358	22	50	3.5	75	1	0.5	15.8	216
SMB5359	24	50	3.5	100	1	0.5	17.3	198
SMB5360	25	50	4	110	1	0.5	18	190
SMB5361	27	50	5	120	1	0.5	19.4	176
SMB5362	28	50	6	130	1	0.5	20.1	170
SMB5363	30	40	8	140	1	0.5	21.6	158
SMB5364	33	40	10	150	1	0.5	23.8	144
SMB5365	36	30	11	160	1	0.5	25.9	132
SMB5366	39	30	14	170	1	0.5	28.1	122
SMB5367	43	30	20	190	1	0.5	31	110
SMB5368	47	25	25	210	1	0.5	33.8	100
SMB5369	51	25	27	230	1	0.5	36.7	93
SMB5370	56	20	35	280	1	0.5	40.3	86
SMB5371	60	20	40	350	1	0.5	43	79
SMB5372	62	20	42	400	1	0.5	44.6	76
SMB5373	68	20	44	500	1	0.5	49	70
SMB5374	75	20	45	620	1	0.5	54	63
SMB5375	82	15	65	720	1	0.5	59	58
SMB5376	87	15	75	760	1	0.5	63	54.5
SMB5377	91	15	75	760	1	0.5	65.5	52.5
SMB5378	100	12	90	800	1	0.5	72	47.5
SMB5379	110	12	125	1000	1	0.5	79.2	43
SMB5380	120	10	170	1150	1	0.5	86.4	39.5
SMB5381	130	10	190	1250	1	0.5	93.2	36.6
SMB5382	140	8	230	1500	1	0.5	101	34
SMB5383	150	8	330	1500	1	0.5	108	31.6
SMB5384	160	8	350	1650	1	0.5	115	29.4
SMB5385	170	8	380	1750	1	0.5	122	28
SMB5386	180	5	430	1750	1	0.5	130	26.4
SMB5387	190	5	450	1850	1	0.5	137	25
SMB5388	200	5	480	1850	1	0.5	144	23.6

[1] Standard tolerance on nominal Zener voltage is ± 20%, Suffix "A" indicates ± 10% tolerance, Suffix "B" indicates ± 5% tolerance.