Z5SMB5333B - Z5SMB5388B

SURFACE MOUNT SILICON ZENER DIODES

VOLTAGE RANGE: 3.3 - 200V
POWER: 5.0Watts



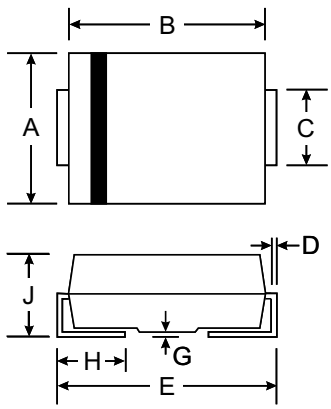
Features

- Complete Voltage Range 3.3 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.)

RoHS COMPLIANT



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°C unless otherwise specified

Rating	Symbol	Value	Unit
Power Dissipation at T_L = 25 °C	P_D	5	W
Maximum Forward Voltage at I_F = 1.0 A	V_F	1.2	V
Thermal Resistance, Junction to Ambient (Note 1)	$R_{\Theta JA}$	90	°C/W
Thermal Resistance, Junction to Lead (Note 1)	$R_{\Theta JL}$	25	°C/W
Operating and Storage Temperature Range	T_J, T_{STG}	- 65 to + 150	°C

Note :

(1) When mounted on FR4 PC board (1 oz Cu) with recommended footprint.

ELECTRICAL CHARACTERISTICS (Rating at 25 °C ambient temperature unless otherwise specified)

TYPE	Regulator Voltage		Maximum Zener Impedance			Maximum Reverse Leakage Current		Maximum Zener Current	Maximum Surge Current	Maximum Voltage Regulator
	V_Z @ I_{ZT}	I_{ZT}	Z_{ZT} @ I_{ZT}	Z_{ZK} @ I_{ZK}	I_{ZK}	I_R @ V_R		I_{ZM}	I_{ZSM}	
	(V)	(mA)	(Ω)	(Ω)	(mA)	(μA)	(V)	(mA)	(A)	ΔV_Z
Z5SMB5333B	3.3	380	3.0	400	1.0	300	1.0	1440	20.0	0.85
Z5SMB5334B	3.6	350	2.5	500	1.0	150	1.0	1320	18.7	0.80
Z5SMB5335B	3.9	320	2.0	500	1.0	50	1.0	1220	17.6	0.54
Z5SMB5336B	4.3	290	2.0	500	1.0	10	1.0	1100	16.4	0.49
Z5SMB5337B	4.7	260	2.0	450	1.0	5.0	1.0	1010	15.3	0.44
Z5SMB5338B	5.1	240	1.5	400	1.0	1.0	1.0	930	14.4	0.39
Z5SMB5339B	5.6	220	1.0	400	1.0	1.0	2.0	856	13.4	0.25
Z5SMB5340B	6.0	200	1.0	300	1.0	1.0	3.0	790	12.7	0.19
Z5SMB5341B	6.2	200	1.0	200	1.0	1.0	3.0	765	12.4	0.10
Z5SMB5342B	6.8	175	1.0	200	1.0	10	5.2	700	11.5	0.15
Z5SMB5343B	7.5	175	1.5	200	1.0	10	5.7	630	10.7	0.15
Z5SMB5344B	8.2	150	1.5	200	1.0	10	6.2	580	10.0	0.20
Z5SMB5345B	8.7	150	2.0	200	1.0	10	6.6	545	9.5	0.20
Z5SMB5346B	9.1	150	2.0	150	1.0	7.5	6.9	520	9.2	0.22
Z5SMB5347B	10	125	2.0	125	1.0	5.0	7.6	475	8.6	0.22
Z5SMB5348B	11	125	2.5	125	1.0	5.0	8.4	430	8.0	0.25
Z5SMB5349B	12	100	2.5	125	1.0	2.0	9.1	395	7.5	0.25
Z5SMB5350B	13	100	2.5	100	1.0	1.0	9.9	365	7.0	0.25
Z5SMB5351B	14	100	2.5	75	1.0	1.0	10.6	340	6.7	0.25
Z5SMB5352B	15	75	2.5	75	1.0	1.0	11.5	315	6.3	0.25
Z5SMB5353B	16	75	2.5	75	1.0	1.0	12.2	295	6.0	0.30
Z5SMB5354B	17	70	2.5	75	1.0	0.5	12.9	280	5.8	0.35
Z5SMB5355B	18	65	2.5	75	1.0	0.5	13.7	265	5.5	0.40
Z5SMB5356B	19	65	3.0	75	1.0	0.5	14.4	250	5.3	0.40
Z5SMB5357B	20	65	3.0	75	1.0	0.5	15.2	237	5.1	0.40
Z5SMB5358B	22	50	3.5	75	1.0	0.5	16.7	216	4.7	0.45
Z5SMB5359B	24	50	3.5	100	1.0	0.5	18.2	198	4.4	0.55
Z5SMB5360B	25	50	4.0	110	1.0	0.5	19.0	190	4.3	0.55
Z5SMB5361B	27	50	5.0	120	1.0	0.5	20.6	176	4.1	0.60
Z5SMB5362B	28	50	6.0	130	1.0	0.5	21.2	170	3.9	0.60
Z5SMB5363B	30	40	8.0	140	1.0	0.5	22.8	158	3.7	0.60
Z5SMB5364B	33	40	10	150	1.0	0.5	25.1	144	3.5	0.60
Z5SMB5365B	36	30	11	160	1.0	0.5	27.4	132	3.3	0.65
Z5SMB5366B	39	30	14	170	1.0	0.5	29.7	122	3.1	0.65
Z5SMB5367B	43	30	20	190	1.0	0.5	32.7	110	2.8	0.70
Z5SMB5368B	47	25	25	210	1.0	0.5	35.8	100	2.7	0.80
Z5SMB5369B	51	25	27	230	1.0	0.5	38.8	93.0	2.5	0.90
Z5SMB5370B	56	20	35	280	1.0	0.5	42.6	86.0	2.3	1.00
Z5SMB5371B	60	20	40	350	1.0	0.5	45.5	79.0	2.2	1.20
Z5SMB5372B	62	20	42	400	1.0	0.5	47.1	76.0	2.1	1.35
Z5SMB5373B	68	20	44	500	1.0	0.5	51.7	70.0	2.0	1.50
Z5SMB5374B	75	20	45	620	1.0	0.5	56.0	63.0	1.9	1.60
Z5SMB5375B	82	15	65	720	1.0	0.5	62.2	58.0	1.8	1.80
Z5SMB5376B	87	15	75	760	1.0	0.5	66.0	54.5	1.7	2.00
Z5SMB5377B	91	15	75	760	1.0	0.5	69.2	52.5	1.6	2.20
Z5SMB5378B	100	12	90	800	1.0	0.5	76.0	47.5	1.5	2.30
Z5SMB5379B	110	12	125	1000	1.0	0.5	83.6	43.0	1.4	2.50
Z5SMB5380B	120	10	170	1150	1.0	0.5	91.2	39.5	1.3	2.50
Z5SMB5381B	130	10	190	1250	1.0	0.5	98.8	36.6	1.2	2.50
Z5SMB5382B	140	8.0	230	1500	1.0	0.5	106	34.0	1.2	2.50
Z5SMB5383B	150	8.0	330	1500	1.0	0.5	114	31.6	1.1	3.00
Z5SMB5384B	160	8.0	350	1650	1.0	0.5	122	29.4	1.1	3.00
Z5SMB5385B	170	8.0	380	1750	1.0	0.5	129	28.0	1.0	3.00
Z5SMB5386B	180	5.0	430	1750	1.0	0.5	137	26.4	1.0	4.00
Z5SMB5387B	190	5.0	450	1850	1.0	0.5	144	25.0	0.9	5.00
Z5SMB5388B	200	5.0	480	1850	1.0	0.5	152	23.6	0.9	5.00

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

(2) The surge current (I_{ZSM}) is specified as the maximum peak of a non- recurrent half-sin wave of 8.3 ms duration.

(3) Voltage regulation (V_Z) is the difference between the voltage measured at 10% and 50% of I