Z5SMC5333B-Z5SMC5388B

SURFACE MOUNT SILICON ZENER DIODES

VOLTAGE RANGE: 3.3 - 200V
POWER: 5.0Watts



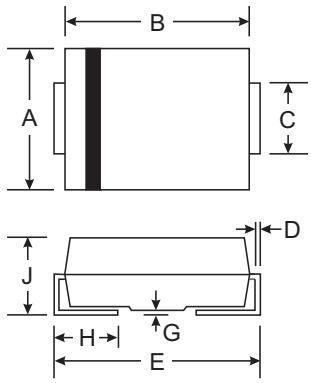
Features

- Complete Voltage Range 3.3 to 200 Volts
- High peak reverse power dissipation
- High reliability
- Low leakage current

Mechanical Data

- Case: SMC/DO-214AB, Molded Plastic
- Terminals: Solder Plated, Solderable per MIL-STD-750, Method 2026
- Polarity: Cathode Band or Cathode Notch
- Marking: Type Number
- Weight: 0.21 grams (approx.)

RoHS COMPLIANT



SMC/DO-214AB		
Dim	**Min**	**Max**
A	5.59	6.22
B	6.60	7.11
C	2.75	3.18
D	0.15	0.31
E	7.75	8.13
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
	V_Z @ I_{ZT}	I_{ZT}	Z_{ZT} @ I_{ZT}	Z_{ZK} @ I_{ZK}	I_{ZK}	I_R @	V_R	I_{ZM}	I_{ZSM}	Regulator
	(V)	(mA)	(Ω)	(Ω)	(mA)	(μA)	(V)	(mA)	(A)	ΔV_Z
Z5SMC5333B	3.3	380	3.0	400	1.0	300	1.0	1440	20.0	0.85
Z5SMC5334B	3.6	350	2.5	500	1.0	150	1.0	1320	18.7	0.80
Z5SMC5335B	3.9	320	2.0	500	1.0	50	1.0	1220	17.6	0.54
Z5SMC5336B	4.3	290	2.0	500	1.0	10	1.0	1100	16.4	0.49
Z5SMC5337B	4.7	260	2.0	450	1.0	5.0	1.0	1010	15.3	0.44
Z5SMC5338B	5.1	240	1.5	400	1.0	1.0	1.0	930	14.4	0.39
Z5SMC5339B	5.6	220	1.0	400	1.0	1.0	2.0	856	13.4	0.25
Z5SMC5340B	6.0	200	1.0	300	1.0	1.0	3.0	790	12.7	0.19
Z5SMC5341B	6.2	200	1.0	200	1.0	1.0	3.0	765	12.4	0.10
Z5SMC5342B	6.8	175	1.0	200	1.0	10	5.2	700	11.5	0.15
Z5SMC5343B	7.5	175	1.5	200	1.0	10	5.7	630	10.7	0.15
Z5SMC5344B	8.2	150	1.5	200	1.0	10	6.2	580	10.0	0.20
Z5SMC5345B	8.7	150	2.0	200	1.0	10	6.6	545	9.5	0.20
Z5SMC5346B	9.1	150	2.0	150	1.0	7.5	6.9	520	9.2	0.22
Z5SMC5347B	10	125	2.0	125	1.0	5.0	7.6	475	8.6	0.22
Z5SMC5348B	11	125	2.5	125	1.0	5.0	8.4	430	8.0	0.25
Z5SMC5349B	12	100	2.5	125	1.0	2.0	9.1	395	7.5	0.25
Z5SMC5350B	13	100	2.5	100	1.0	1.0	9.9	365	7.0	0.25
Z5SMC5351B	14	100	2.5	75	1.0	1.0	10.6	340	6.7	0.25
Z5SMC5352B	15	75	2.5	75	1.0	1.0	11.5	315	6.3	0.25
Z5SMC5353B	16	75	2.5	75	1.0	1.0	12.2	295	6.0	0.30
Z5SMC5354B	17	70	2.5	75	1.0	0.5	12.9	280	5.8	0.35
Z5SMC5355B	18	65	2.5	75	1.0	0.5	13.7	265	5.5	0.40
Z5SMC5356B	19	65	3.0	75	1.0	0.5	14.4	250	5.3	0.40
Z5SMC5357B	20	65	3.0	75	1.0	0.5	15.2	237	5.1	0.40
Z5SMC5358B	22	50	3.5	75	1.0	0.5	16.7	216	4.7	0.45
Z5SMC5359B	24	50	3.5	100	1.0	0.5	18.2	198	4.4	0.55
Z5SMC5360B	25	50	4.0	110	1.0	0.5	19.0	190	4.3	0.55
Z5SMC5361B	27	50	5.0	120	1.0	0.5	20.6	176	4.1	0.60
Z5SMC5362B	28	50	6.0	130	1.0	0.5	21.2	170	3.9	0.60
Z5SMC5363B	30	40	8.0	140	1.0	0.5	22.8	158	3.7	0.60
Z5SMC5364B	33	40	10	150	1.0	0.5	25.1	144	3.5	0.60
Z5SMC5365B	36	30	11	160	1.0	0.5	27.4	132	3.3	0.65
Z5SMC5366B	39	30	14	170	1.0	0.5	29.7	122	3.1	0.65
Z5SMC5367B	43	30	20	190	1.0	0.5	32.7	110	2.8	0.70
Z5SMC5368B	47	25	25	210	1.0	0.5	35.8	100	2.7	0.80
Z5SMC5369B	51	25	27	230	1.0	0.5	38.8	93.0	2.5	0.90
Z5SMC5370B	56	20	35	280	1.0	0.5	42.6	86.0	2.3	1.00
Z5SMC5371B	60	20	40	350	1.0	0.5	45.5	79.0	2.2	1.20
Z5SMC5372B	62	20	42	400	1.0	0.5	47.1	76.0	2.1	1.35
Z5SMC5373B	68	20	44	500	1.0	0.5	51.7	70.0	2.0	1.50
Z5SMC5374B	75	20	45	620	1.0	0.5	56.0	63.0	1.9	1.60
Z5SMC5375B	82	15	65	720	1.0	0.5	62.2	58.0	1.8	1.80
Z5SMC5376B	87	15	75	760	1.0	0.5	66.0	54.5	1.7	2.00
Z5SMC5377B	91	15	75	760	1.0	0.5	69.2	52.5	1.6	2.20
Z5SMC5378B	100	12	90	800	1.0	0.5	76.0	47.5	1.5	2.30
Z5SMC5379B	110	12	125	1000	1.0	0.5	83.6	43.0	1.4	2.50
Z5SMC5380B	120	10	170	1150	1.0	0.5	91.2	39.5	1.3	2.50
Z5SMC5381B	130	10	190	1250	1.0	0.5	98.8	36.6	1.2	2.50
Z5SMC5382B	140	8.0	230	1500	1.0	0.5	106	34.0	1.2	2.50
Z5SMC5383B	150	8.0	330	1500	1.0	0.5	114	31.6	1.1	3.00
Z5SMC5384B	160	8.0	350	1650	1.0	0.5	122	29.4	1.1	3.00
Z5SMC5385B	170	8.0	380	1750	1.0	0.5	129	28.0	1.0	3.00
Z5SMC5386B	180	5.0	430	1750	1.0	0.5	137	26.4	1.0	4.00
Z5SMC5387B	190	5.0	450	1850	1.0	0.5	144	25.0	0.9	5.00
Z5SMC5388B	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