



Package outline

5.0W Surface Mount Zener Diodes - 3.6V-100V

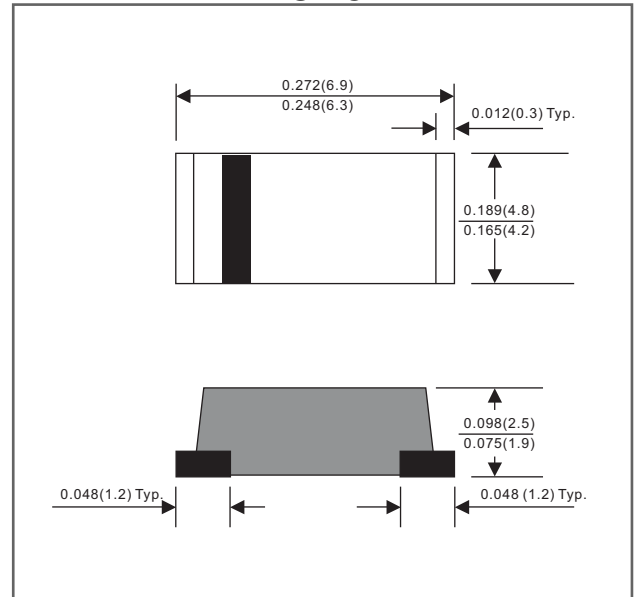
Features

- Batch process design, excellent power dissipation offers better reverse leakage current and thermal resistance.
- Silicon epitaxial planar chip structure.
- Wide zener reverse voltage range 3.6V to 100V.
- Small package size for high density applications.
- Ideally suited for automated assembly processes.
- Lead-free parts meet environmental standards of MIL-STD-19500/228
- Suffix "-H" indicates Halogen free parts, ex. 1SMC5334BG-H.

Mechanical data

- Epoxy:UL94-V0 rated flame retardant
- Case : Molded plastic, DO-214AB/SMC
- Terminals :Plated terminals, solderable per MIL-STD-750, Method 2026
- Polarity : Indicated by cathode band
- Mounting Position : Any
- Weight : Approximated 0.19 gram

SMC



Dimensions in inches and (millimeters)

Maximum ratings (AT $T_A=25^{\circ}\text{C}$ unless otherwise noted)

PARAMETER	Symbol	MIN.	TYP.	MAX.	UNIT
Power Dissipation	P_D			5.0	W
Operating temperature	T_J	-55		+150	$^{\circ}\text{C}$
Storage temperature	T_{STG}	-65		+175	$^{\circ}\text{C}$

Thermal characteristics

PARAMETER	Symbol	Limit	UNIT
Typical thermal resistance junction to lead	$R_{\theta JL}$	23	$^{\circ}\text{C/W}$
Typical thermal resistance junction to ambient	$R_{\theta JA}$	50	$^{\circ}\text{C/W}$



1SMC5334BG THRU 1SMC5378BG

Electrical characteristics (at $T_A=25^{\circ}\text{C}$ unless otherwise noted)

Part No.	Zener voltage			Test current	Zener impedance			Leakage current	
	$V_Z @ I_{ZT}$ (Volts)			I_{ZT}	$Z_{ZT} @ I_{ZT}$	$Z_{ZK} @ I_{ZK}$	I_{ZK}	I_R	V_R
	Min.	Nom.	Max.	mA	OHMs	OHMs	mA	μA	Volts
1SMC5334BG	3.42	3.6	3.78	350.0	3	500	1.00	150.0	1.0
1SMC5335BG	3.71	3.9	4.10	320.0	2	500	1.00	50.0	1.0
1SMC5336BG	4.09	4.3	4.52	290.0	2	500	1.00	10.0	1.0
1SMC5337BG	4.47	4.7	4.94	260.0	2	450	1.00	10.0	1.0
1SMC5338BG	4.85	5.1	5.36	240.0	2	400	1.00	10.0	1.0
1SMC5339BG	5.32	5.6	5.88	220.0	1	400	1.00	10.0	2.0
1SMC5340BG	5.70	6.0	6.30	200.0	1	300	1.00	10.0	3.0
1SMC5341BG	5.89	6.2	6.51	200.0	1	200	1.00	10.0	3.0
1SMC5342BG	6.46	6.8	7.14	175.0	1	200	1.00	10.0	5.2
1SMC5343BG	7.13	7.5	7.88	175.0	2	200	1.00	10.0	5.7
1SMC5344BG	7.79	8.2	8.61	150.0	2	200	1.00	10.0	6.2
1SMC5345BG	8.27	8.7	9.14	150.0	2	200	1.00	10.0	6.6
1SMC5346BG	8.65	9.1	9.56	150.0	2	150	1.00	7.5	6.9
1SMC5347BG	9.50	10	10.50	125.0	2	125	1.00	5.0	7.6
1SMC5348BG	10.45	11	11.55	125.0	3	125	1.00	5.0	8.4
1SMC5349BG	11.4	12	12.60	100.0	3	125	1.00	2.0	9.1
1SMC5350BG	12.35	13	13.65	100.0	3	100	1.00	1.0	9.9
1SMC5351BG	13.30	14	14.70	100.0	3	75	1.00	1.0	10.6
1SMC5352BG	14.25	15	15.75	75.0	3	75	1.00	1.0	11.5
1SMC5353BG	15.20	16	16.80	75.0	3	75	1.00	1.0	12.2
1SMC5354BG	16.15	17	17.85	70.0	3	75	1.00	0.5	12.9
1SMC5355BG	17.10	18	18.90	65.0	3	75	1.00	0.5	13.7
1SMC5356BG	18.05	19	19.95	65.0	3	75	1.00	0.5	14.4
1SMC5357BG	19.00	20	21.00	65.0	3	75	1.00	0.5	15.2
1SMC5358BG	20.90	22	23.10	50.0	4	75	1.00	0.5	16.7
1SMC5359BG	22.80	24	25.20	50.0	4	100	1.00	0.5	18.2
1SMC5360BG	23.75	25	26.25	50.0	4	110	1.00	0.5	19.0
1SMC5361BG	25.65	27	28.35	50.0	5	120	1.00	0.5	20.6
1SMC5362BG	26.60	28	29.40	50.0	6	130	1.00	0.5	21.2
1SMC5363BG	28.50	30	31.50	40.0	8	140	1.00	0.5	22.8
1SMC5364BG	31.35	33	34.65	40.0	10	150	1.00	0.5	25.1
1SMC5365BG	34.20	36	37.80	30.0	11	160	1.00	0.5	27.4
1SMC5366BG	37.05	39	40.95	30.0	14	170	1.00	0.5	29.7
1SMC5367BG	40.85	43	45.15	30.0	20	190	1.00	0.5	32.7
1SMC5368BG	44.65	47	49.35	25.0	25	210	1.00	0.5	35.8
1SMC5369BG	48.45	51	53.55	25.0	27	230	1.00	0.5	38.8
1SMC5370BG	53.20	56	58.80	20.0	35	280	1.00	0.5	42.6
1SMC5371BG	57.00	60	63.00	20.0	40	350	1.00	0.5	45.5
1SMC5372BG	58.90	62	65.10	20.0	42	400	1.00	0.5	47.1
1SMC5373BG	64.60	68	71.40	20.0	44	500	1.00	0.5	51.7
1SMC5374BG	71.25	75	78.75	20.0	45	620	1.00	0.5	56.0
1SMC5375BG	77.90	82	86.10	15.0	60	720	1.00	0.5	62.2
1SMC5376BG	82.65	87	91.35	15.0	75	760	1.00	0.5	66.0
1SMC5377BG	86.45	91	95.55	15.0	75	760	1.00	0.5	69.2
1SMC5378BG	95.00	100	105.0	12.0	90	800	1.00	0.5	76.0

Note : 20% tolerance of Zener voltage for no suffix ex: 1SMC5334 is 3.6V 20%
 10% tolerance of Zener voltage for suffix "A" ex: 1SMC5334A is 3.6V 10%
 5% tolerance of Zener voltage for suffix "B" ex: 1SMC5334B is 3.6V 5%
 2% tolerance of Zener voltage for suffix "C" ex: 1SMC5334C is 3.6V 2%

Rating and characteristic curves

FIG.1 POWER TEMPERATURE DERATING CURVE

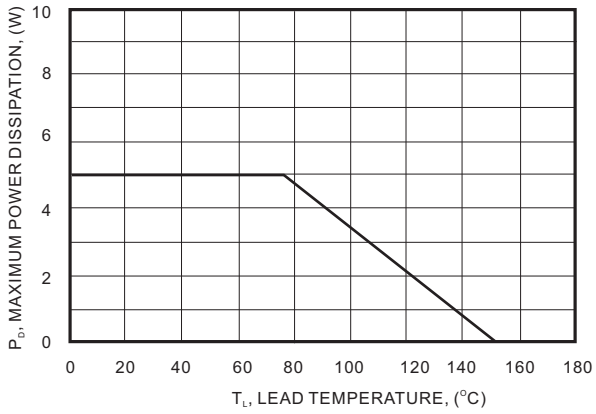


FIG.2 TEMPERATURE COEFFICIENT-RANGE FOR UNITS 10 TO 100 VOLTAGES

