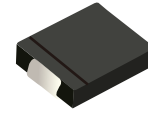
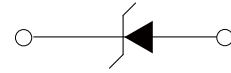


FEATURES

- | Photo Glass passivated junction
- | Ideal for automated placement
- | Low inductance
- | Meet AEC-Q101 Requirements



DO-214AB(SMC)



Schematic Symbol

APPLICATIONS

- | Switching mode power supply (SMPS)
- | Adapters
- | Lighting application
- | On-board DC/DC converter

APPROVALS

RoHS	Compliance with 2011/65/EU
HF	Compliance with IEC61249-2-21:2003

MAXIMUM RATINGS ($T_A=25^{\circ}\text{C}$)

Parameter	Symbol	Value	Unit
DC power dissipation at $T_c=75^{\circ}\text{C}$, measure at zero lead length (Note 1) derate above 75°C	P_D	5	W
Junction-to-lead thermal resistance	$R_{\theta JL}$	20	$^{\circ}\text{C}/\text{W}$
Junction-to-ambient thermal resistance	$R_{\theta JA}$	55	$^{\circ}\text{C}/\text{W}$
Junction-to-case thermal resistance	$R_{\theta JC}$	22	$^{\circ}\text{C}/\text{W}$
Operation Junction and Storage Temperature Range	T_J, T_{STG}	-55 to +175	$^{\circ}\text{C}$

Notes: 1. Mounted on Cu-Pad size 16mm x 16mm on PCB
 Thermal Performance Note: Units mounted on PCB (16mm x 16mm Cu pad test board)

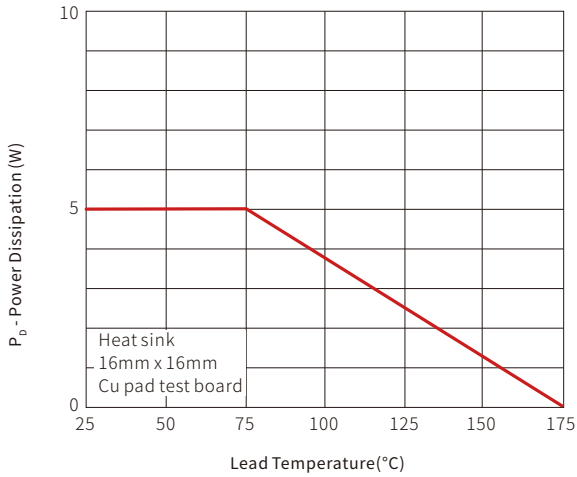
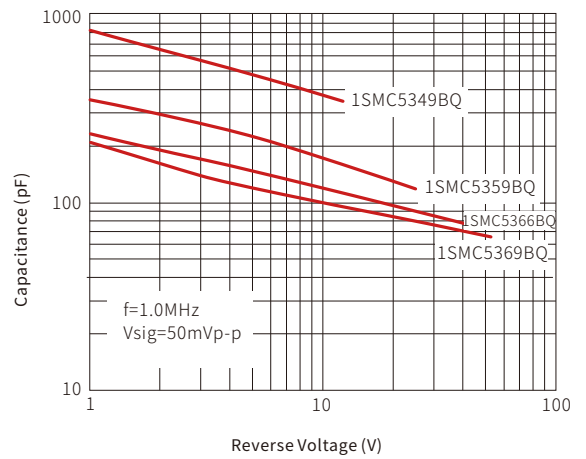
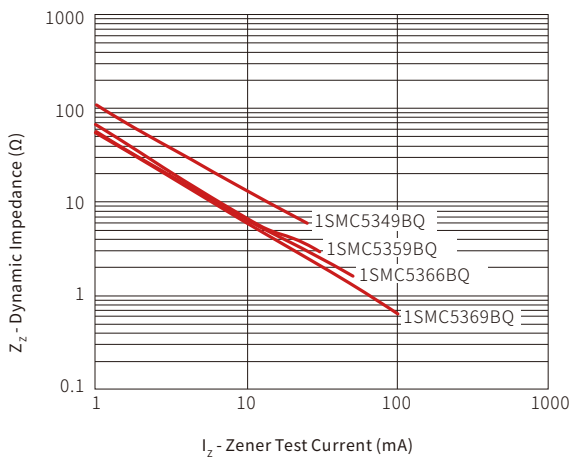
ELECTRICAL CHARACTERISTICS

Part Number	Device Marking Code	Nominal Zener Voltage			Test current	Zener Impedance			Leakage Current		Maximum DC Zener Current
		$V_Z@I_{ZT}$			I_{ZT}	$Z_{ZT}@I_{ZT}$	$Z_{ZK}@I_{ZK}$		$I_R@V_R$		I_{ZM}
		Min.(V)	Nom.(V)	Max.(V)	mA	Ω	Ω	mA	μA	V	mA
1SMC5348BQ	348BQ	10.45	11	11.55	125	3	125	1	5	8.4	430
1SMC5349BQ	349BQ	11.40	12	12.60	100	3	150	1	2	9.1	395
1SMC5350BQ	350BQ	12.35	13	13.65	100	3	150	1	1	9.9	365
1SMC5351BQ	351BQ	13.30	14	14.70	100	3	150	1	1	10.6	345
1SMC5352BQ	352BQ	14.25	15	15.75	75	3	150	1	1	11.5	315
1SMC5353BQ	353BQ	15.20	16	16.80	75	3	150	1	1	12.2	295
1SMC5354BQ	354BQ	16.15	17	17.85	70	3	150	1	0.5	12.9	280
1SMC5355BQ	355BQ	17.10	18	18.90	65	3	150	1	0.5	13.7	264
1SMC5356BQ	356BQ	18.05	19	19.95	65	3	150	1	0.5	14.4	250
1SMC5357BQ	357BQ	19.00	20	21.00	65	3	150	1	0.5	15.2	237
1SMC5358BQ	358BQ	20.90	22	23.10	50	4	150	1	0.5	16.7	216
1SMC5359BQ	359BQ	22.80	24	25.20	50	4	180	1	0.5	18.2	198
1SMC5360BQ	360BQ	23.75	25	26.25	50	4	180	1	0.5	19.0	190
1SMC5361BQ	361BQ	25.65	27	28.35	50	5	180	1	0.5	20.6	176
1SMC5362BQ	362BQ	26.60	28	29.40	50	6	180	1	0.5	21.2	170
1SMC5363BQ	363BQ	28.50	30	31.35	40	8	180	1	0.5	22.8	158
1SMC5364BQ	364BQ	31.35	33	34.65	40	10	180	1	0.5	25.1	144
1SMC5365BQ	365BQ	34.20	36	37.80	30	11	200	1	0.5	27.4	132
1SMC5366BQ	366BQ	37.05	39	40.95	30	14	200	1	0.5	29.7	122
1SMC5367BQ	367BQ	40.85	43	45.15	30	20	200	1	0.5	32.7	110
1SMC5368BQ	368BQ	44.65	47	49.35	25	25	200	1	0.5	35.8	100
1SMC5369BQ	369BQ	48.45	51	53.55	25	27	200	1	0.5	38.8	93

Notes:

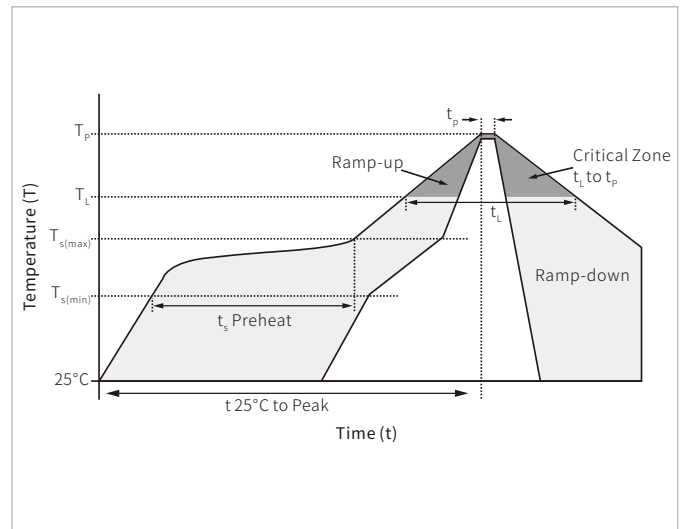
1. Tolerance and type number designation the type numbers listed indicate a tolerance of 5%

CHARACTERISTIC CURVES

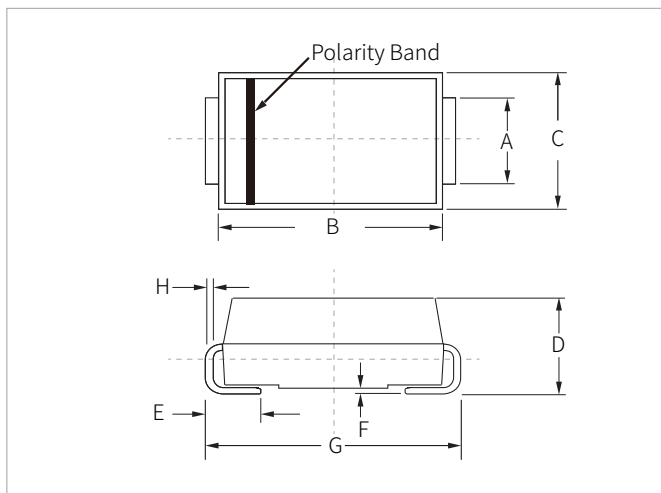
Fig.1 Steady State Power Derating

Fig.2 Typical Junction Capacitance

Fig.3 Typical Zener Impedance


SOLDERING PARAMETERS

Reflow Condition		Lead-free assembly
Pre Heat	Temperature Max ($T_{s(min)}$)	150°C
	Temperature Max ($T_{s(max)}$)	200°C
	Time (min to max) (t_s)	60 – 180 secs
Average ramp up rate (Liquidus Temp (T_L) to peak		3°C/second max
$T_{s(max)}$ to T_L - Ramp-up Rate		3°C/second max
Reflow	Temperature (T_L) (Liquidus)	217°C
	Time (min to max) (t_L)	60 – 150 seconds
Peak Temperature (T_p)		260°C
Time within 5°C of actual peak Temperature (t_p)		20 – 40 seconds
Ramp-down Rate		6°C/second max
Time 25°C to peak Temperature (T_p)		8 minutes max.
Do not exceed		260°C

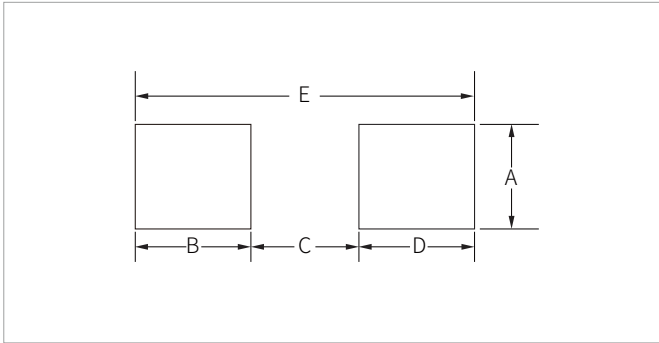


DO-214AB(SMC) PACKAGE INFORMATION



Ref.	Millimeters		Inches	
	Min.	Max.	Min.	Max.
A	2.80	3.20	0.110	0.126
B	6.60	7.20	0.260	0.283
C	5.70	6.10	0.224	0.240
D	2.15	2.75	0.085	0.108
E	1.00	1.60	0.039	0.063
F	0.02	0.20	0.000	0.008
G	7.60	8.00	0.299	0.315
H	0.15	0.30	0.006	0.012

RECOMMENDED PAD LAYOUT DIMENSIONS



Ref.	Millimeters		Inches	
	Min.	Max.	Min.	Max.
A	3.30	-	0.129	-
B	2.40	-	0.094	-
C	-	4.20	-	0.165
D	2.40	-	0.094	-
E	8.20REF		0.323REF	

ORDERING INFORMATION

Part Number	Component Package	QTY/Reel	Reel Size
1SMC5348BQ-1SMC5369BQ	DO-214AB(SMC)	3000PCS	13"

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