

5W, 15V Surface Mount Zener Diode

FEATURES

- AEC-Q101 qualified
- Ideal for automated placement
- Glass passivated chip junction
- Moisture sensitivity level: level 1, per J-STD-020
- RoHS Compliant
- Halogen-free according to IEC 61249-2-21

APPLICATIONS

- For general purpose regulation and protection applications

MECHANICAL DATA

- Case : DO-214AB (SMC)
- Molding compound meets UL 94V-0 flammability rating
- Terminal : Matte tin plated leads, solderable per J-STD-002
- Meet JESD 201 class 2 whisker test
- Polarity : Indicated by cathode band
- Weight : 0.260g (approximately)

KEY PARAMETERS		
PARAMETER	VALUE	UNIT
V_Z	15	V
P_D	5	W
$T_{J\ MAX}$	150	°C
Package	DO-214AB (SMC)	
Configuration	Single die	


**HALOGEN
FREE**


DO-214AB (SMC)



ABSOLUTE MAXIMUM RATINGS ($T_A = 25^\circ\text{C}$ unless otherwise noted)			
PARAMETER	SYMBOL	VALUE	UNIT
Steady state power dissipation at $T_L = 75^\circ\text{C}$	P_D	5	W
Junction temperature	T_J	-55 to +150	°C
Storage temperature	T_{STG}	-55 to +150	°C

Maximum ratings are those values beyond which device damage can occur. Maximum ratings applied to the device are individual stress limit values (not normal operating conditions) and are not valid simultaneously. If these limits are exceeded, device functional operation is not implied, damage may occur and reliability may be attached.

THERMAL PERFORMANCE			
PARAMETER	SYMBOL	TYP	UNIT
Junction-to-ambient thermal resistance	$R_{\theta JA}$	55	°C/W

ELECTRICAL SPECIFICATIONS ($T_A = 25^\circ\text{C}$ unless otherwise noted)

Part number (Note 1)	Marking code	Regulator Voltage (Note 2)	Test Current	Maximum Dynamic Impedance	Maximum Reverse Current	I_R Test Voltage	Maximum Regulator Current	Maximum Dynamic Knee Impedance
		$V_Z@I_Z$	I_Z	Z_Z	I_R	V_R	I_{ZM}	$Z_{ZK}@1\text{mA}$
		V	mA	Ω	μA	V	mA	Ω
1SMC5352H	352B	15	75	2.5	1.0	11.5	315	75

Notes:

1. Tolerance and voltage regulation designation. The type number listed indicates a tolerance of 5%.
2. Zener voltage (V_Z) measurement
 Nominal Zener voltage is measured with the device junction in thermal equilibrium with ambient temperature 25°C

ORDERING INFORMATION

ORDERING CODE	PACKAGE	PACKING
1SMC5352H	DO-214AB (SMC)	3,000 / Tape & Reel

CHARACTERISTICS CURVES

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

Fig.1 Effect Of Zener Current

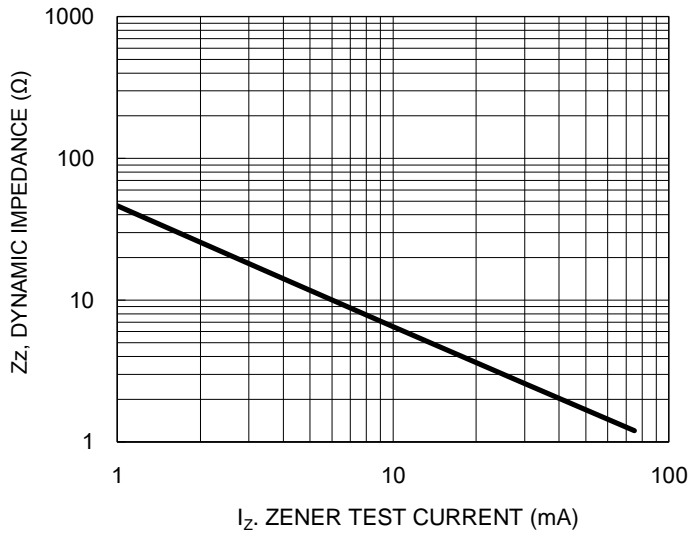


Fig.2 Steady State Power Derating

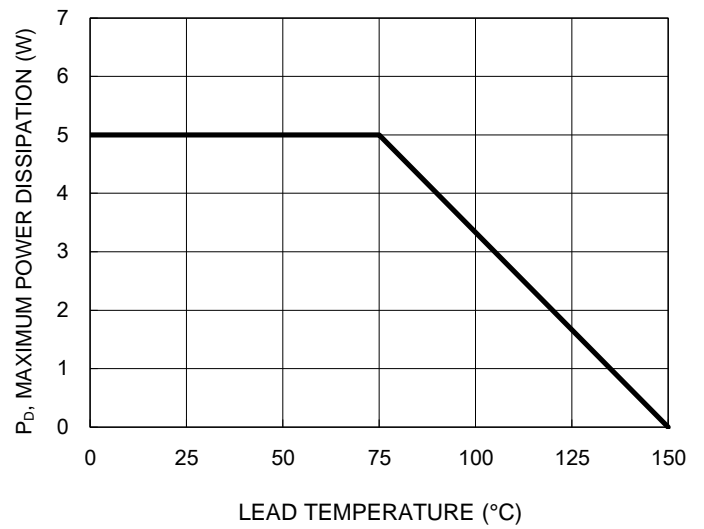
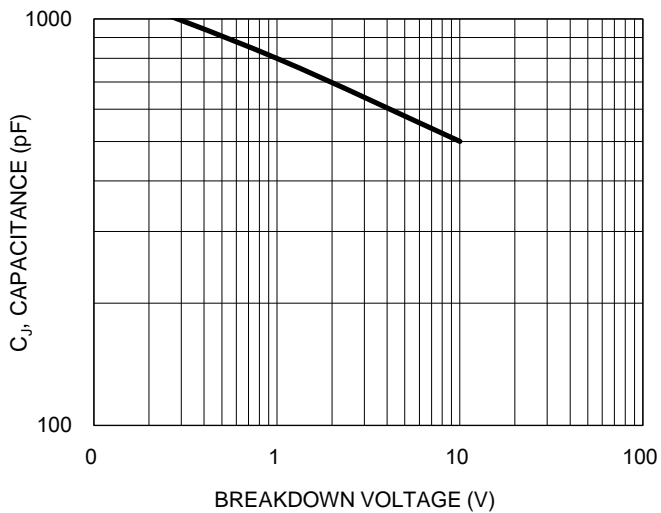
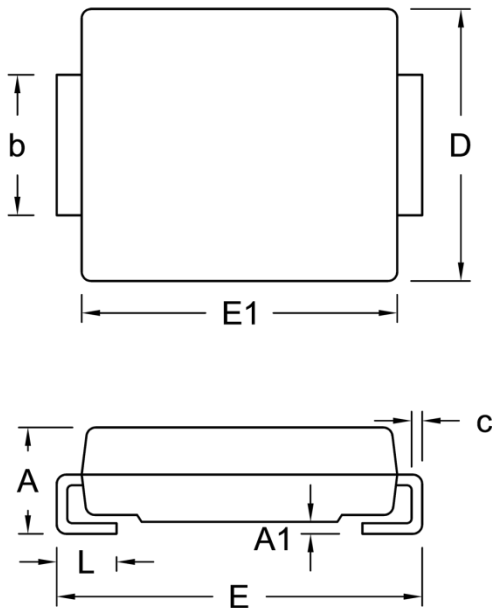


Fig.3 Typical Junction Capacitance



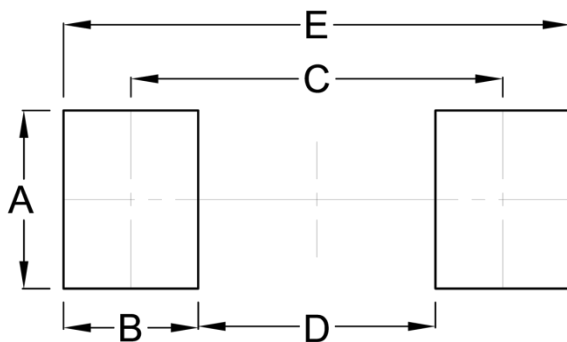
PACKAGE OUTLINE DIMENSIONS

DO-214AB (SMC)



DIM.	Unit (mm)		Unit (inch)	
	Min.	Max.	Min.	Max.
A	2.00	2.62	0.079	0.103
A1	0.10	0.20	0.004	0.008
b	2.90	3.20	0.114	0.126
c	0.15	0.31	0.006	0.012
D	5.59	6.22	0.220	0.245
E	7.75	8.13	0.305	0.320
E1	6.60	7.11	0.260	0.280
L	1.00	1.60	0.039	0.063

SUGGESTED PAD LAYOUT



Symbol	Unit (mm)	Unit (inch)
A	3.30	0.130
B	2.50	0.098
C	6.90	0.272
D	4.40	0.173
E	9.40	0.370

MARKING DIAGRAM



P/N = Marking Code
G = Green Compound
YW = Date Code
F = Factory Code

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