

SMB SURFACE MOUNT SILICON ZENER DIODES

Features

- Low Zener impedance
- Power dissipation: 5 W
- High stability and high reliability
- Small plastic package, suitable for surface mount applications

Applications

Zener diode is generally used as reference voltage sources in regulated power supplies or as protective diode in overvoltage protection circuits.

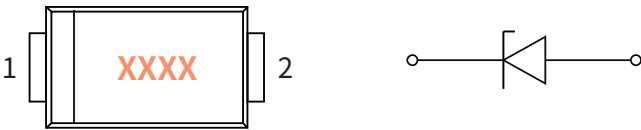
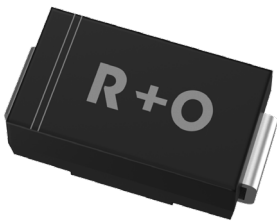
Mechanical Data

- Case: DO-214AA(SMB)
- Molding compound meets UL 94V-0 flammability rating, RoHS-compliant, halogen-free
- Terminals: Solder plated, solderable per MIL-STD-750, Method 2026
- Polarity: Cathode line denotes the cathode end

Function Diagram

Zener Diode
3.3 Volts
Power Dissipation
5.0 Watts

DO-214AA(SMB)



Maximum Ratings (Ta=25°C Unless otherwise specified)

Table with 4 columns: PARAMETER, SYMBOL, UNIT, VALUE. Rows include Power Dissipation at Tc=75°C, Forward Voltage @ If=200mA, Storage Temperature, Junction Temperature, and Typical Thermal Resistance.

Electrical Parameter

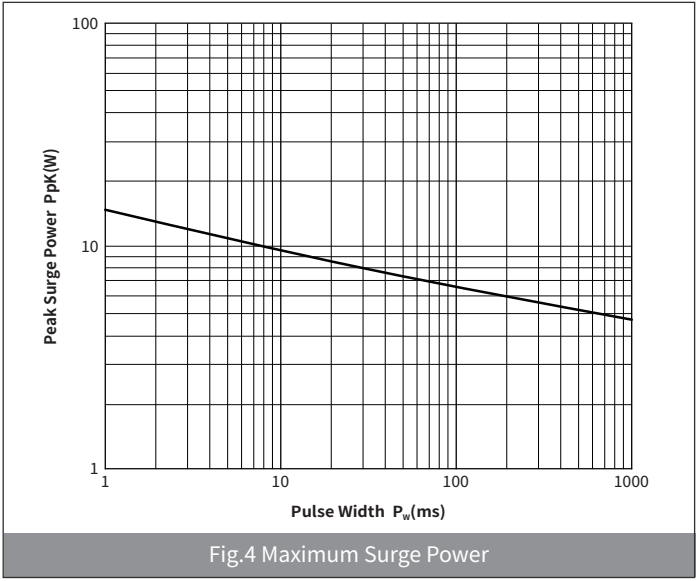
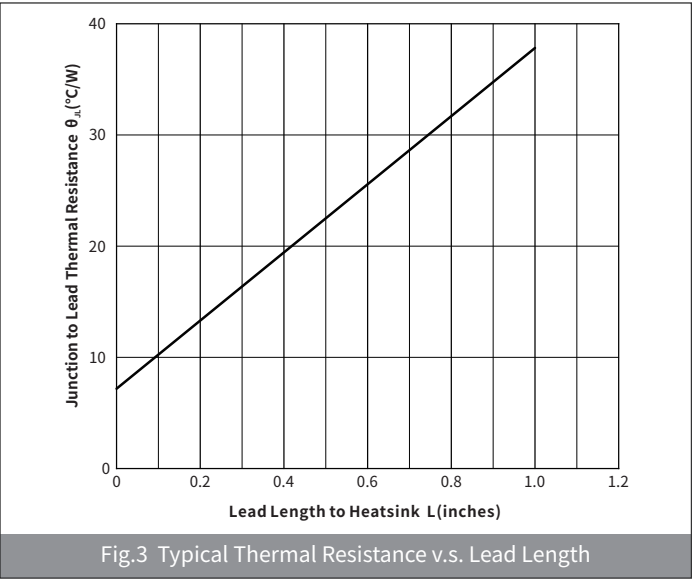
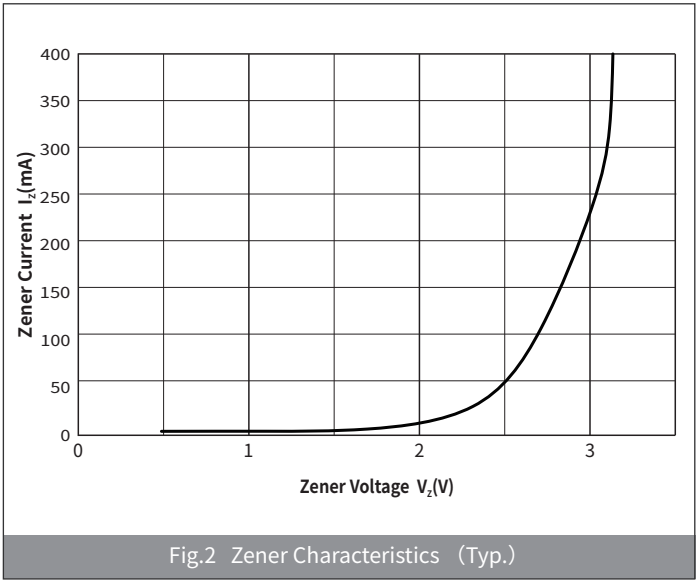
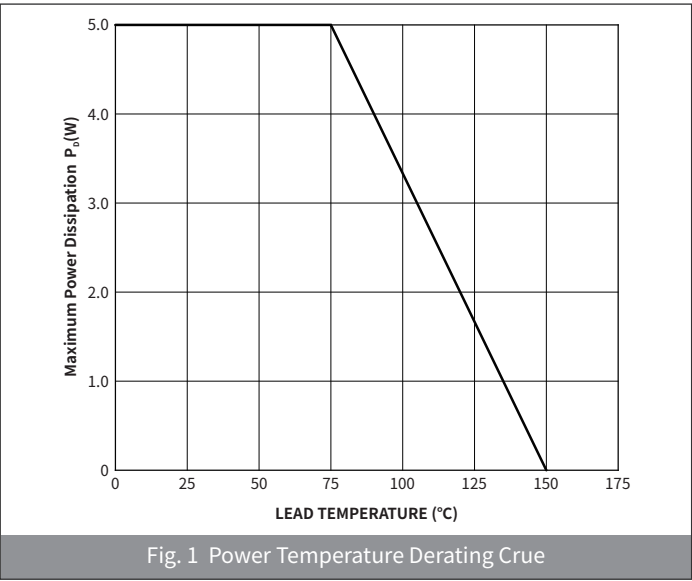
Table with 2 columns: SYMBOL, PARAMETER. Rows include Vz, IzT, ZzT, IzK, ZzK, IR, VR, IF, and VF. To the right is a graph of current I vs voltage V showing the diode's characteristic curves.

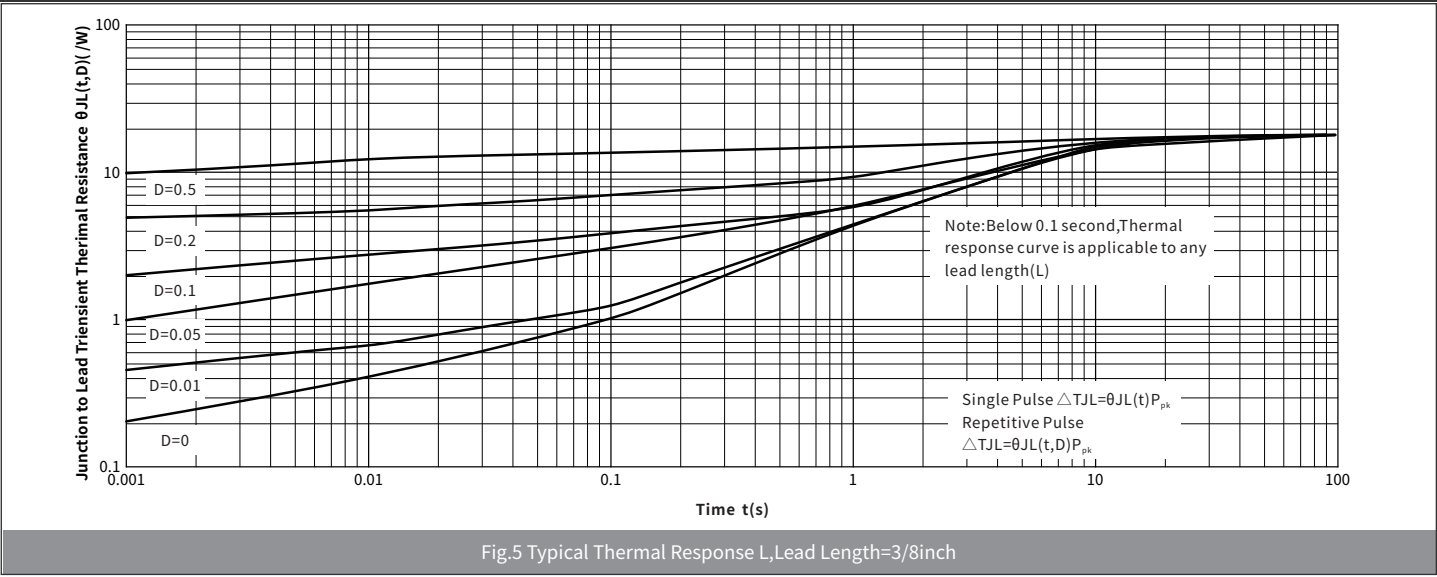
● Electrical Characteristics (Ta=25°C Unless otherwise noted)

Type Number	Type Code	Regulator Voltage	Test Current	Maximum Zener Impedance			Maximum Reverse Leakage Current		Maximum DC Zener Current	Maximum Surge Current	Maximum Voltage Regulation
		$V_Z @ I_{ZT}$	I_{ZT}	$Z_{ZT} @ I_{ZT}$	$Z_{ZK} @ I_{ZK}$	I_{ZK}	$I_R @ V_R$		I_{ZM}	I_{ZSM}	
		(V)	(mA)	(Ω)		(mA)	(μA)	(V)	(mA)	(A)	
SMBJ5333B	333B	3.3	380	3.0	400	1.0	300	1.0	1440	20.0	0.85

Note :
(1)The type number listed have a standard tolerance on the nominal zener voltage of ±5%
(2)The reverse surge current is a non-repetitive equivalent sine wave, 8.3 ms pulse width, superimposed on IZT per specified method.

● Ratings And Characteristics Curves (Ta=25°C Unless otherwise specified)





● Ordering Information

PACKAGE	PACKAGE CODE	UNIT WEIGHT(g)	REEL(pcs)	BOX(pcs)	CARTON(pcs)	DELIVERY MODE
SMB	R3	0.098	3000	6000	48000	13"

● Package Outline Dimensions (SMB/DO-214AA)

Symbol	Dimensions			
	Millimeters		Inches	
	Min.	Max.	Min.	Max.
A	1.85	2.21	0.073	0.087
B	4.25	4.85	0.167	0.191
C	3.30	3.94	0.130	0.155
D	2.15	2.65	0.085	0.104
E	0.75	1.52	0.030	0.060
F	-	0.203	-	0.008
G	5.08	5.59	0.200	0.220
H	0.15	0.31	0.006	0.012

● Suggested Pad Layout

Symbol	Dimensions			
	Millimeters		Inches	
	Min.	Max.	Min.	Max.
M	2.45	2.55	0.096	0.100
J	1.75	1.85	0.069	0.073
K	2.41	2.51	0.095	0.099

The pad layout is for reference only.