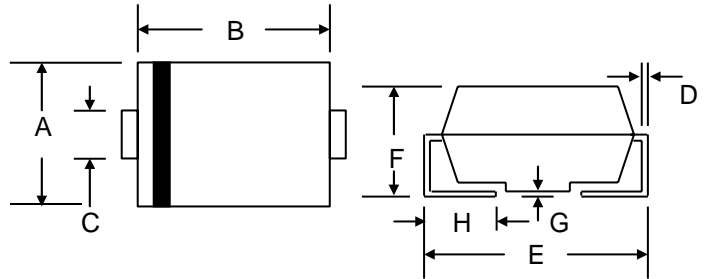


Features

- Glass Passivated Die Construction
- 1.25W Power Dissipation
- 30V Nominal Zener Voltage
- 5% Standard Vz Tolerance
- Low Inductance
- For Use in Voltage Regulator or Reference
- Plastic Case Material has UL Flammability Classification Rating 94V-0
- AEC-Q101 qualified



Mechanical Data

- Case: SMA/DO-214AC, Molded Plastic
- Terminals: Solder Plated, Solderable per MIL-STD-750, Method 2026
- Polarity: Cathode Band
- Marking: Device Code
- **Lead Free: For RoHS / Lead Free Version, Add "-LF" Suffix to Part Number, See Page 5**

SMA/DO-214AC		
Dim	Min	Max
A	2.29	2.92
B	4.00	4.60
C	1.27	1.90
D	0.152	0.305
E	4.80	5.30
F	2.00	2.44
G	0.051	0.203
H	0.76	1.52
All Dimensions in mm		

Maximum Ratings @T_A=25°C unless otherwise specified

Characteristic	Symbol	Value	Unit
Power Dissipation at TL= 125°C (Note 1)	P _D	>=0.5	W
Power Dissipation at T _a = 25°C		>=1.25	W
Non repeated peak pulse power at T _J = 25°C, pulse width 100uS square waveform	P	>=60	W
Forward Voltage @ I _F = 200mA	V _F	<=1.2	V
Thermal Resistance, Junction to Ambient	R _{θJA}	135	°C/W
Thermal Resistance, Junction to Lead (Note 1)	R _{θJL}	15	°C/W
Operating and Storage Temperature Range	T _J , T _{STG}	-65 to +150	°C

Note: 1. Mounted on FR-4 PCB with 25.4 x 25.4 x 1.5 mm, pads size with 5 x 5mm, copper thickness with 1oz
T_A test point located 5mm directly above

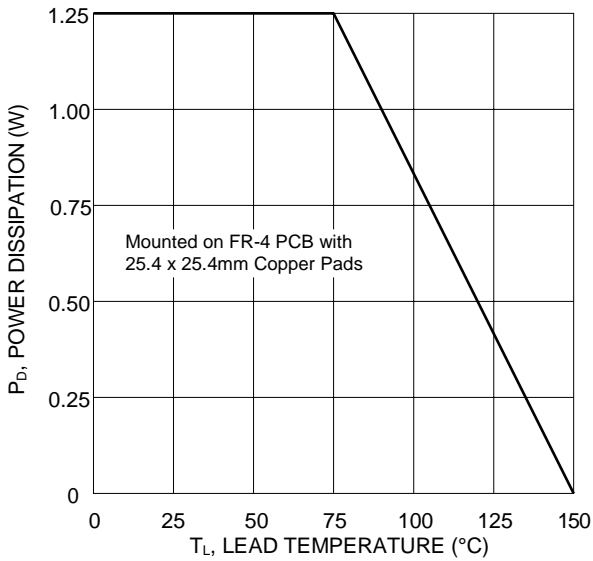


Fig. 1 Power Derating Curve

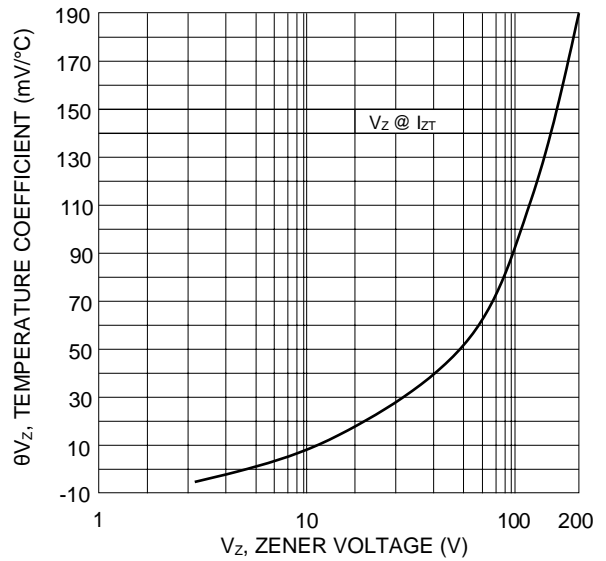


Fig. 2 Typical Temperature Coefficients

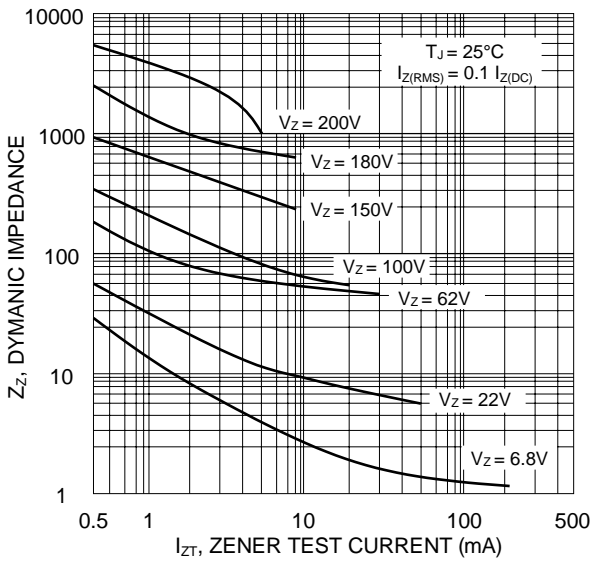


Fig. 3 Dynamic Resistance vs. Zener Current

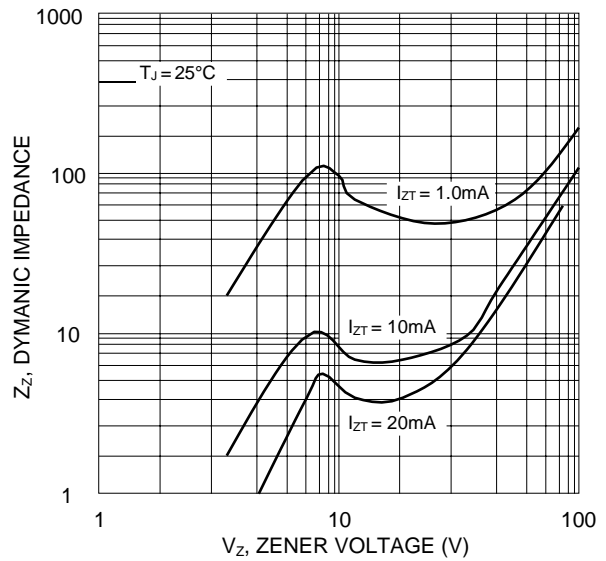


Fig. 3 Dynamic Resistance vs. Zener Voltage

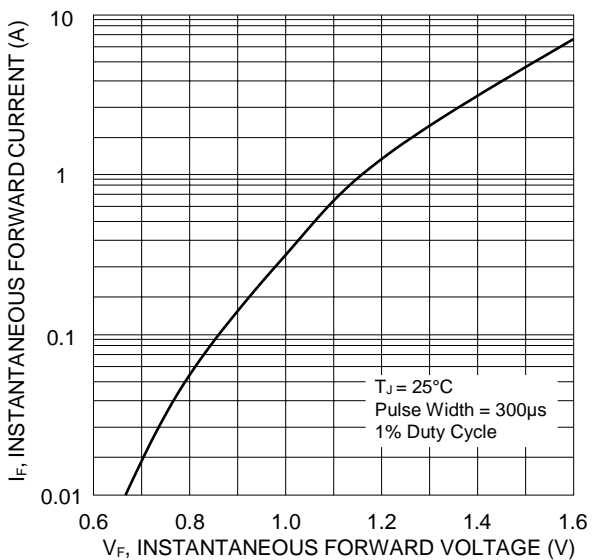


Fig. 5 Typical Forward Characteristics

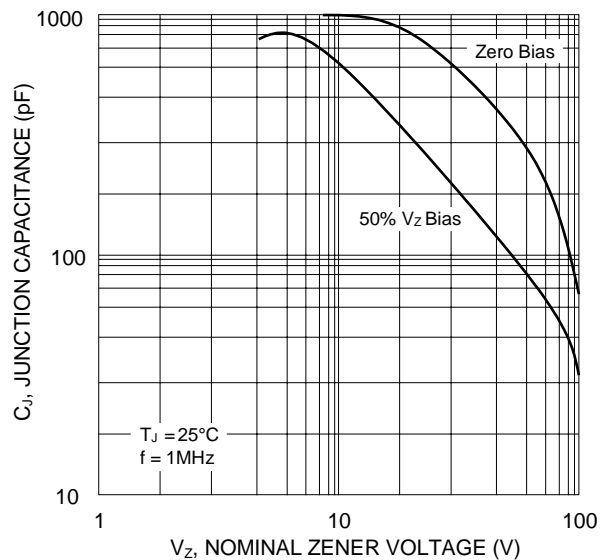


Fig. 6 Junction Capacitance vs. Nominal Zener Voltage

Electrical Characteristics (@T_A=25°C unless otherwise specified) Table 1

Type Number (Note 1)	Device Marking Code	Nominal Zener Voltage (Note 2)	Test Current	Maximum Zener Impedance (Note 3)			Maximum Leakage Current		Max DC Zener Current
		V _Z @ I _{ZT}	I _{ZT}	Z _{ZT} @ I _{ZT}	Z _{ZK} @ I _{ZK}	I _{ZK}	I _R @ V _R		I _{ZM}
		(V)	(mA)	(Ω)	(Ω)	(mA)	(μA)	(V)	(mA)
SZ30S1UA-LF	Z30	30	12.5	26.0	750	0.25	1	22.8	50

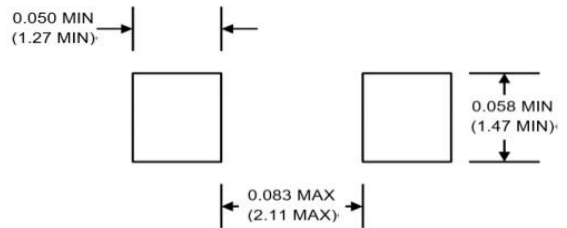
- Note: 1. Type numbers listed have standard tolerance on the nominal zener voltage of ±5%.
 2. Measured under thermal equilibrium and DC (I_{ZT}) test conditions.
 3. The Zener impedance is derived from the 60Hz AC voltage which results when an AC current having an RMS value equal to 10% of the Zener current (I_{ZT} or I_{ZK}) is superimposed on I_{ZT} or I_{ZK}. Zener impedance is measured at two points to insure a sharp knee on the breakdown curve and to eliminate unstable units.

MARKING INFORMATION



Cathode = Polarity Band
xx = Device Code, See Table 1

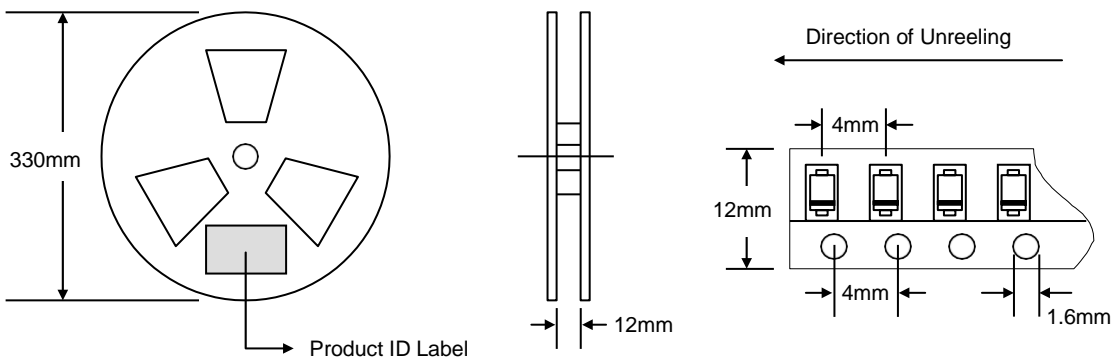
RECOMMENDED FOOTPRINT



inches(mm)

PACKAGING INFORMATION

TAPE & REEL



Reel Diameter (mm)	Quantity (PCS)	Inner Box Size L x W x H (mm)	Quantity (PCS)	Carton Size L x W x H (mm)	Quantity (PCS)	Approx. Gross Weight (KG)
330	5,000	340 x 337 x 45	10,000	370 x 370 x 420	80,000	14.0

Note: 1. Paper reel, white or gray color.
2. Components are packed in accordance with EIA standard 481-1 and 481-2.

ORDERING INFORMATION

Product No.	Package Type	Shipping Quantity
SZ30S1UA-LF	SMA	5000/Tape & Reel

- Shipping quantity given is for minimum packing quantity only. For minimum order quantity, please consult the Sales Department.
- To order RoHS / Lead Free version (with Lead Free finish), add "-LF" suffix to part number above. For example, SZ30S1UA-T3-LF.**

Revision history of Specification

Version	Change Items	Effective Date
1.0	Initial Release	13-Aug-2021
1.1	Update Thermal Resistance	15-Aug-2023
1.2	Upgrade Power Dissipation	29-Aug-2023