

Features

- ◆ Voltage range 5.6 volts
- ◆ High peak reverse power dissipation
- ◆ High reliability
- ◆ Low leakage current
- ◆ Standard zener voltage tolerance is $\pm 5\%$.

Mechanical Data

Case : Molded plastic body

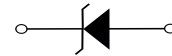
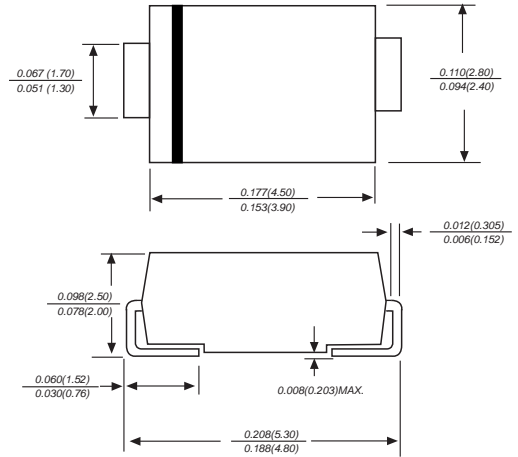
Terminals : Solder plated, solderable per MIL-STD-750,Method 2026

Polarity : Polarity symbol marking on body

Mounting Position : Any

Weight : 0.0023 ounce, 0.07 grams

DO-214AC/SMA



Dimensions in inches and (millimeters)

Maximum Ratings And Electrical Characteristics

Ratings at 25°C ambient temperature unless otherwise specified.

Rating	Symbol	Value	Unit
DC Power Dissipation at $T_L = 50^\circ\text{C}$ (Note1)	P_D	2.0	W
Maximum Forward Voltage at $I_F = 200\text{ mA}$	V_F	1.2	V
Junction Temperature Range	T_J	- 55 to + 150	$^\circ\text{C}$
Storage Temperature Range	T_s	- 55 to + 150	$^\circ\text{C}$

Note :

(1) T_L =Lead temperature at 3/8" (9.5mm)from body

Part Number	Device Marking Code	Nominal Zener Voltage @ I_T			I_{ZT} (mA)	Maximum Zener Impedance			Maximum Reverse Leakage Current		Maximum DC Zener Current
		$V_{Z\text{AVE}}$ (V)	$V_{Z\text{MIN}}$ (V)	$V_{Z\text{MAX}}$ (V)		$Z_{ZT\text{MAX}}$ (Ω) @ I_{ZT}	$Z_{ZK\text{MAX}}$ (Ω) @ I_{ZK}	I_{ZK} (mA)	I_R (μA) @ V_R	V_R (V)	
1SMA5919BT3G-CN	2H8	5.6	5.32	5.88	89.5	2.5	500	1.00	10	2.0	323.0

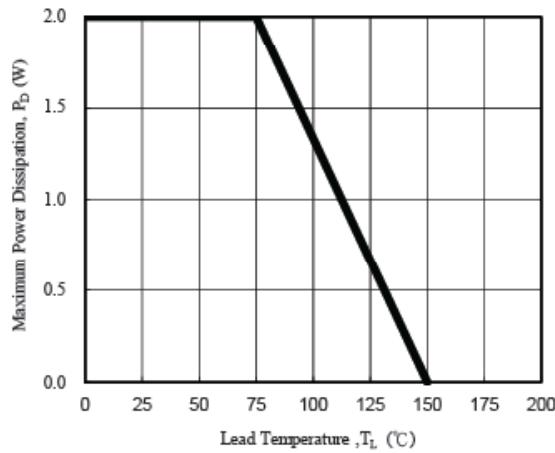
Ratings And Characteristic Curves


Fig. 1 - Power Temperature Derating Curve

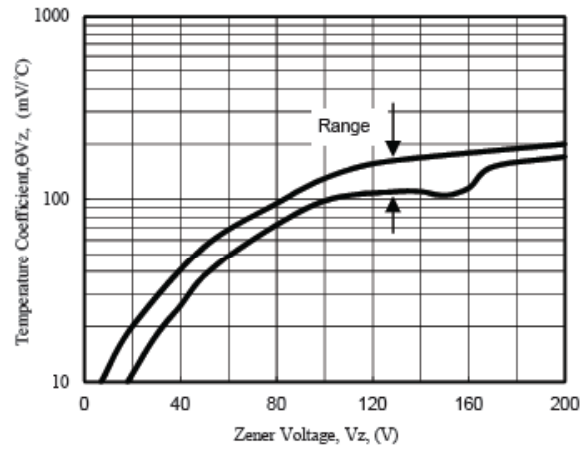


Fig. 2 - Temperature Coefficients v.s. Zener Voltage

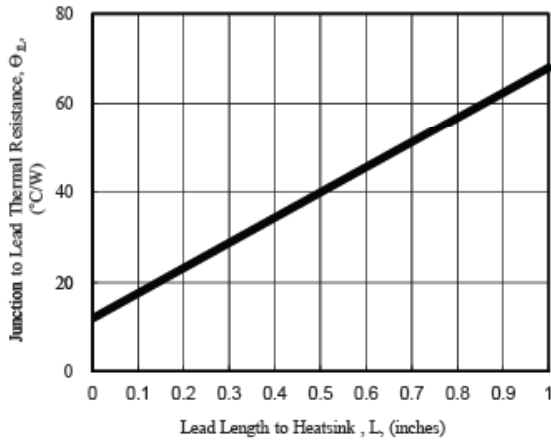


Fig. 3 - Typical Thermal Resistance v.s. Lead Length

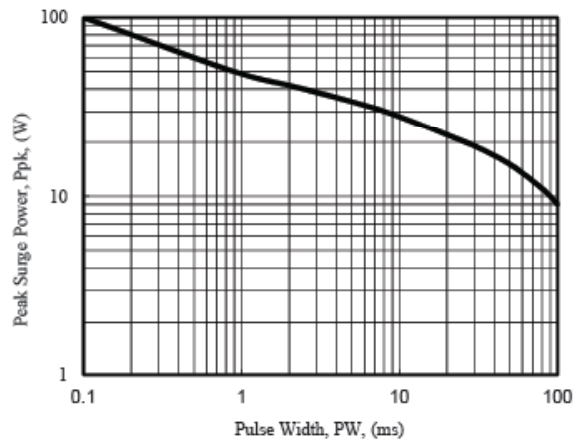


Fig. 4 - Maximum Surge Power

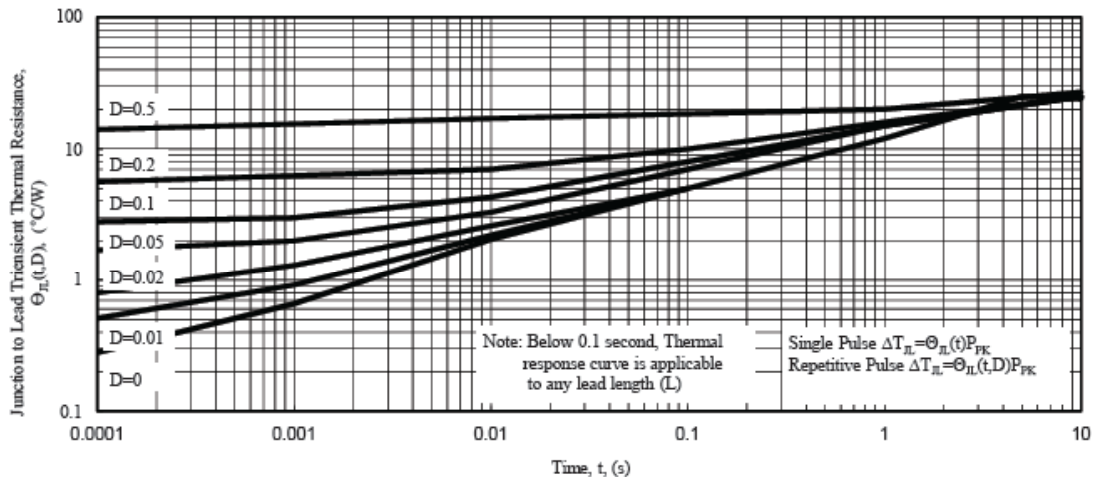
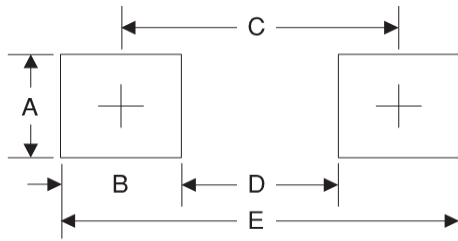


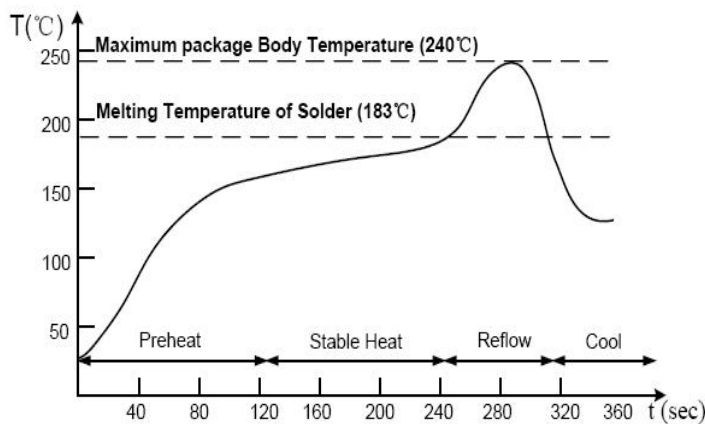
Fig. 5 - Typical Thermal Response L, Lead Length=3/8inch

Suggested Pad Layout



Symbol	Unit (mm)	Unit (inch)
A	1.68	0.066
B	1.52	0.060
C	3.90	0.154
D	2.41	0.095
E	5.45	0.215

Suggested Soldering Temperature Profile

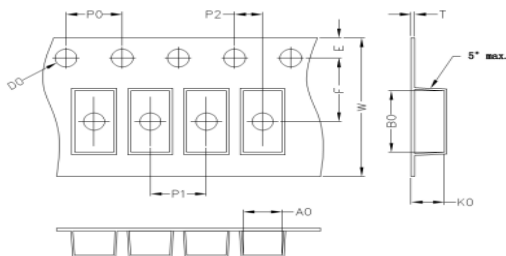


Note

- Recommended reflow methods: IR, vapor phase oven, hot air oven, wave solder.
- The device can be exposed to a maximum temperature of 265°C for 10 seconds.
- Devices can be cleaned using standard industry methods and solvents.
- If reflow temperatures exceed the recommended profile, devices may not meet the performance requirements.

Package Information

Carrier Dimension(mm)



A0	B0	K0	D0	E	F
2.80	5.30	2.36	1.55	1.75	5.50
P0	P1	P2	T	W	Tolerance
4.0	4.0	2.0	0.25	12	0.1

Package Specifications

Package	Reel Size	Reel DIA. (mm)	Q'TY/Reel (Kpcs)	Box Size (mm)	QTY/Box (Kpcs)	Carton Size (mm)	Q'TY/Carton (Kpcs)
SMA	11'	278	5	285	10	355*310*310	80
	13'	330	7.5	340	15	360*360*360	120

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