



Features:

- 1W Power Dissipation
- High Surge Capability
- Ideally Suited for Automatic Assembly
- 5.1V-39V Nominal Zener Voltage Range
- Standard V_Z Tolerance is $\pm 5\%$

Mechanical Data

- Case: JEDEC SMA, Molded Plastic
- Terminals: Solderable per MILSTD-202, Method 208
- Polarity: Colour Band Denotes Cathode End
- Weight: 0.002oz, 0.064g
- Mounting Position: Any

Maximum Ratings and Thermal Characteristics

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

Parameter	Symbol	Value	Unit
Power dissipation at $T_A=50^\circ\text{C}$ (Note 1)	P_{tot}	1	W
Forward voltage @ $I_F=200\text{mA}$	V_F	1.2	V
Maximum thermal resistance junction to ambient	$R_{\theta JA}$	125	$^\circ\text{C/W}$
Maximum thermal resistance junction to terminal	$R_{\theta JT}$	30	$^\circ\text{C/W}$
Junction and Storage temperature range	T_J, T_{STG}	-55 to +150	$^\circ\text{C}$

Notes:

(1) $1" \times 0.85" \times 0.062"$.

Electrical Characteristics

Ratings at 25°C ambient temperature unless otherwise specified)

Part Number (Note 3)	Marking Code	Zener Voltage Range (Note 2)			Test Cur- rent	Maximum Zener Impedance			Maximum Reverse Current		IZM Max (Note 1)
		VZ@IZT				IZT	ZZT@ IZT	ZZK@IZK	IR@VR		
		Nom(V)	Min(V)	Max(V)	mA	Ω	Ω	mA	μA	V	mA
SMAZ15-13-F	ZHZ	15	14.25	15.75	50	10	150	1	1	11.4	67
SMAZ24-13-F	ZJL	24	22.8	25.2	25	15	180		0.5	18.2	42
SMAZ30-13-F	ZJQ	30	28.5	31.5	25	15	250		0.5	22.8	33
SMAZ33-13-F	ZJR	33	31.35	34.65	25	15	300		0.5	25.1	30
SMAZ5V1-13-F	ZHK	5.1	4.84	5.4	100	5.0	500		2.5	1	196
SMAZ9V1-13-F	ZHT	9.1	8.65	9.56	50	4.0	200		5	7	110

Notes:

- (1) Device mounted on FR-4 PCB, 1" × 0.85" × 0.062".
- (2) Short duration test pulse used to minimize self-heating effect.
- (3) Zener voltage below 5.1V available upon request.

Fig. 1 - Typical Forward Characteristic

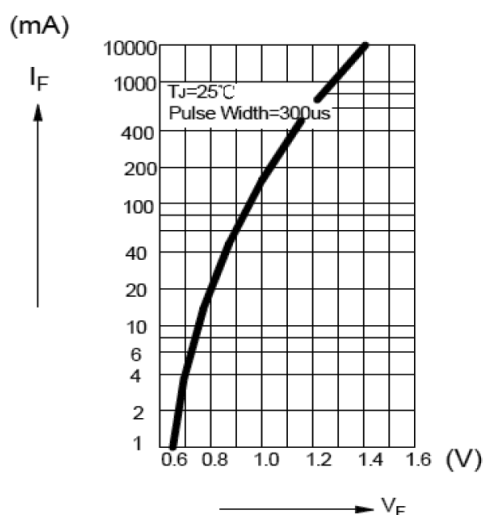
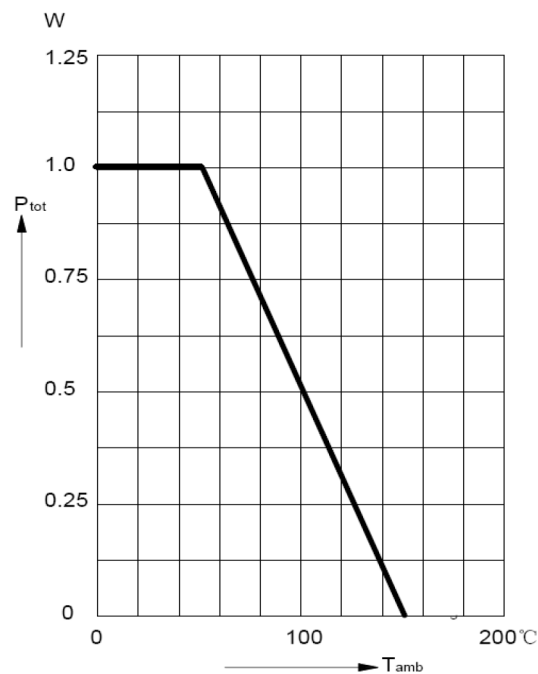
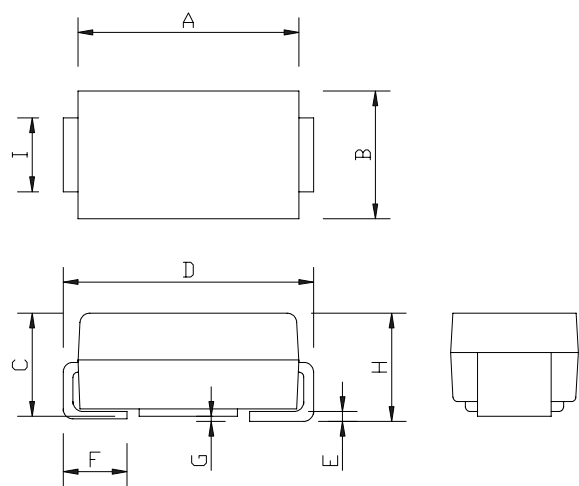


Fig. 2 - Admissible Power Dissipation Versus Ambient Temperature



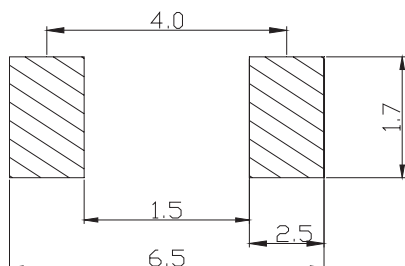
Package Outline Dimensions



DO-214AC(SMA)		
Dim.	Min.	Max.
A	4.25	4.65
B	2.4	2.8
C	1.85	2.15
D	4.85	5.35
E	0.1	0.3
F	0.9	1.5
G	0.2 Max.	
H	1.9	2.3
I	1.35	1.65

Dimensions : Millimetres

Soldering Footprint



Dimensions : Millimetres

Package Information

Device	Package	Shipping
SMAZ15-13-F SMAZ24-13-F SMAZ30-13-F SMAZ33-13-F SMAZ5V1-13-F & SMAZ9V1-13-F	DO-214AC(SMA)	5,000 / Tape & Reel

Part Number Table

Description	Part Number
Zener Diode	SMAZ15-13-F
	SMAZ24-13-F
	SMAZ30-13-F
	SMAZ33-13-F
	SMAZ5V1-13-F
	SMAZ9V1-13-F

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