

Maximum Ratings (@T_A = +25°C, unless otherwise specified.)

Characteristic	Symbol	Value	Unit	
Forward Voltage @I _F = 200mA	V _F	1.2	V	
Zener Current	I _{ZM}	P_D/V_Z	mA	

Thermal Characteristics

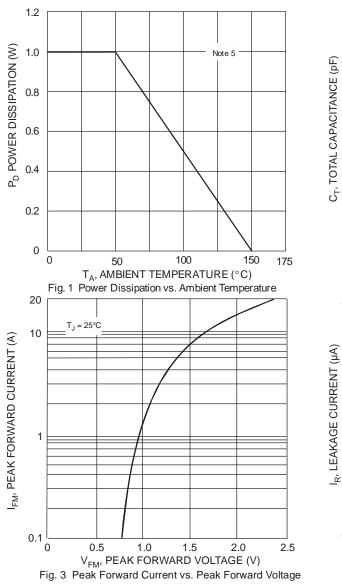
Characteristic	Symbol	Value	Unit
Power Dissipation @T _A = +50°C Derate Above +50°C (Note 5)	P _D	1.0 10.0	W mW/°C
Typical Thermal Resistance – Junction to Terminal (Note 5)	$R_{\theta JT}$	30	°C/W
Typical Thermal Resistance – Junction to Ambient (Note 5)	R _{0JA}	100	°C/W
Operating and Storage Temperature Range	$T_{J_i}T_{STG}$	-65 to +150	°C

Electrical Characteristics (@T_A = +25°C, unless otherwise specified.)

Type Marking Number Code		Zener Voltage Range (Note 6)		Test Current	Maximum Zener Impedance			Maximum Reverse Current (Note 6)		I _{ZM} Max	
		V _{Z @} I _{ZT}			I _{ZT}	Z _{ZT @} I _{ZT}	Z _{ZK @} I _{ZK}		I _{R @} V _R		(Note 5)
		Nom (V)	Min (V)	Max (V)	mA	Ω	Ω	mA	μΑ	V	mA
SMAZ5V1	ZHK	5.1	4.84	5.40	100	5.0	500	1.0	2.5	1.0	196
SMAZ5V6	ZHL	5.60	5.32	5.88	100	2.0	250	2.0	5.0	2.0	179
SMAZ6V2	ZHN	6.20	5.89	6.51	100	2.0	200	2.0	5.0	3.0	161
SMAZ6V8	ZHO	6.80	6.46	7.14	100	2.0	200	1.0	5.0	4.0	147
SMAZ7V5	ZHQ	7.50	7.13	7.88	100	2.0	450	1.0	5.0	5.0	133
SMAZ8V2	ZHR	8.20	7.79	8.61	100	2.0	200	1.0	5.0	6.0	122
SMAZ9V1	ZHT	9.10	8.65	9.56	50	4.0	200	1.0	5.0	7.0	110
SMAZ10	ZHU	10.00	9.50	10.50	50	4.0	200	1.0	1.0	7.6	100
SMAZ12	ZHW	12.00	11.40	12.60	50	7.0	150	1.0	1.0	9.1	83
SMAZ15	ZHZ	15.00	14.25	15.75	50	10	150	1.0	1.0	11.4	67
SMAZ16	ZJA	16.00	15.20	16.80	25	15	150	1.0	0.5	12.2	63
SMAZ18	ZJF	18.00	17.10	18.90	25	15	150	1.0	0.5	13.7	56
SMAZ20	ZJG	20.00	19.00	21.00	25	15	180	1.0	0.5	15.2	50
SMAZ22	ZJK	22.00	20.90	23.10	25	15	180	1.0	0.5	16.7	45
SMAZ24	ZJL	24.00	22.80	25.20	25	15	180	1.0	0.5	18.2	42
SMAZ27	ZJN	27.00	25.65	28.35	25	15	200	1.0	0.5	20.5	37
SMAZ30	ZJQ	30.00	28.50	31.50	25	15	250	1.0	0.5	22.8	33
SMAZ33	ZJR	33.00	31.35	34.65	25	15	300	1.0	0.5	25.1	30
SMAZ36	ZJS	36.00	34.20	37.80	10	40	350	1.0	0.5	27.4	28
SMAZ39	ZJT	39.00	37.05	40.95	10	40	450	1.0	0.5	29.6	26

Notes: 5. Device mounted on FR-4 PCB, 1 inch x 0.85 inch x 0.062 inch; pad layout as shown on Diodes Inc.'s package outlines page, which can be found on our website at http://www.diodes.com/package-outlines.html.
6. Short duration pulse test used to minimize self-heating effect.





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 V_{ZT} , ZENER REGULATION VOLTAGE (V) Fig. 5 Differential Resistance vs. Regulation Voltage

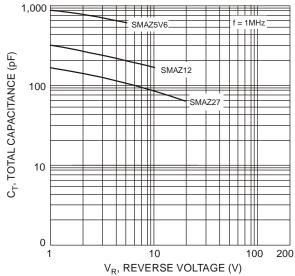


Fig. 2 Typical Total Capacitance vs. Reverse Voltage

2,000

1,000

100

10

10

1

0.01

10

10

10

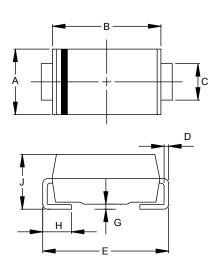
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 V_{ZT} , ZENER REGULATION VOLTAGE (V) Fig. 4 Leakage Current vs. Regulation Voltage



Package Outline Dimensions

Please see http://www.diodes.com/package-outlines.html for the latest version.



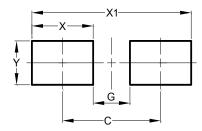
SMA

SMA				
Dim	Min	Max		
Α	2.29	2.92		
В	4.00	4.60		
С	1.27	1.63		
D	0.15	0.31		
E	4.80	5.59		
G	0.05	0.20		
Н	0.76	1.52		
J	1.96	2.40		
All Dimensions in mm				

Suggested Pad Layout

Please see http://www.diodes.com/package-outlines.html for the latest version.

SMA



Dimensions	Value (in mm)
С	4.00
G	1.50
Х	2.50
X1	6.50
Υ	1.70



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