

SMAZ5V1~SMAZ39

ZENER DIODES

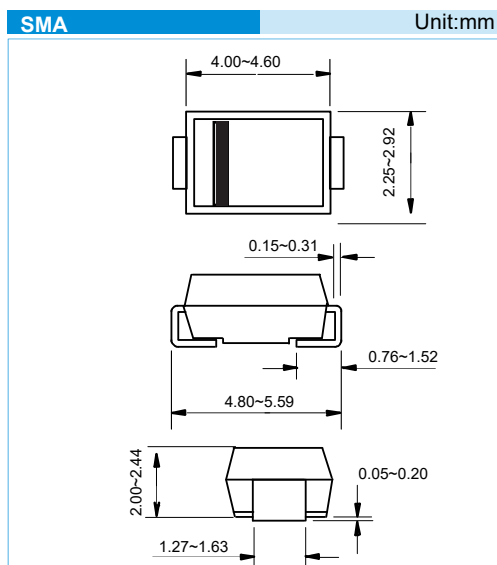
VOLTAGE 5.1 to 39 Volt **POWER** 1.0 Watt

FEATURES

- Excellent clamping capability
- Glass Passivated Junction
- Low Profile Package
- Low Zener Impedance
- Lead free in compliance with EU RoHS

MECHANICAL DATA

- Case Material: Molded Plastic.
- UL Flammability Classification Rating 94V-0



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

Characteristic	Symbol	Value	Unit
Forward Voltage @ $I_F = 200\text{mA}$	V_F	1.2	V
Power Dissipation	P_d	1.0	W
Thermal Resistance from Junction to Ambient	$R_{\theta JA}$	125	°C/W
Junction Temperature	T_j	150	°C
Storage Temperature Range	T_{stg}	-55~+150	°C

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ELECTRICAL CHARACTERISTICS @25°C

Part Number	Zener Voltage V_Z Voltages			Maximum Zener Impedance $Z_{ZT}(\text{OHMS})$		Maximum Zener Impedance $Z_{ZK}(\text{OHMS})$		Reverse Current $I_R(\text{Max}) @ V_R$		I_{ZM} Max (Note 1)	Marking
	Nom	Min	Max	$I_{ZT}(\text{mA})$	Max	$I_{ZK}(\text{mA})$	Max	μA	V	mA	
SMAZ5V1	5.10	4.84	5.40	100	5.0	1.0	500	2.5	1.0	196	Z5V1
SMAZ5V6	5.60	5.32	5.88	100	2.0	2.0	250	5.0	2.0	179	Z5V6
SMAZ6V2	6.20	5.89	6.51	100	2.0	2.0	200	5.0	3.0	161	Z6V2
SMAZ6V8	6.80	6.46	7.14	100	2.0	1.0	200	5.0	4.0	147	Z6V8
SMAZ7V5	7.50	7.13	7.88	100	2.0	1.0	450	5.0	5.0	133	Z7V5
SMAZ8V2	8.20	7.79	8.61	100	2.0	1.0	200	5.0	6.0	122	Z8V2
SMAZ9V1	9.10	8.65	9.56	50	4.0	1.0	200	5.0	7.0	110	Z9V1
SMAZ10	10.00	9.50	10.50	50	4.0	1.0	200	1.0	7.6	100	Z10
SMAZ12	12.00	11.40	12.60	50	7.0	1.0	150	1.0	9.1	83	Z12
SMAZ15	15.00	14.25	15.75	50	10.0	1.0	150	1.0	11.4	67	Z15
SMAZ16	16.00	15.20	16.80	25	15.0	1.0	150	0.5	12.2	63	Z16
SMAZ18	18.00	17.10	18.90	25	15.0	1.0	150	0.5	13.7	56	Z18
SMAZ20	20.00	19.00	21.00	25	15.0	1.0	180	0.5	15.2	50	Z20
SMAZ22	22.00	20.90	23.10	25	15.0	1.0	180	0.5	16.7	45	Z22
SMAZ24	24.00	22.80	25.20	25	15.0	1.0	180	0.5	18.2	42	Z24
SMAZ27	27.00	25.65	28.35	25	15.0	1.0	200	0.5	20.5	37	Z27
SMAZ30	30.00	28.50	31.50	25	15.0	1.0	250	0.5	22.8	33	Z30
SMAZ33	33.00	31.35	34.65	25	15.0	1.0	300	0.5	25.1	30	Z33
SMAZ36	36.00	34.20	37.80	10	40.0	1.0	350	0.5	27.4	28	Z36
SMAZ39	39.00	37.05	40.95	10	40.0	1.0	450	0.5	29.6	26	Z39

Notes1.Device mounted on FR-4 PCB, 1 inch x 0.85 inch x 0.062 inch

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RATING AND CHARACTERISTIC CURVES

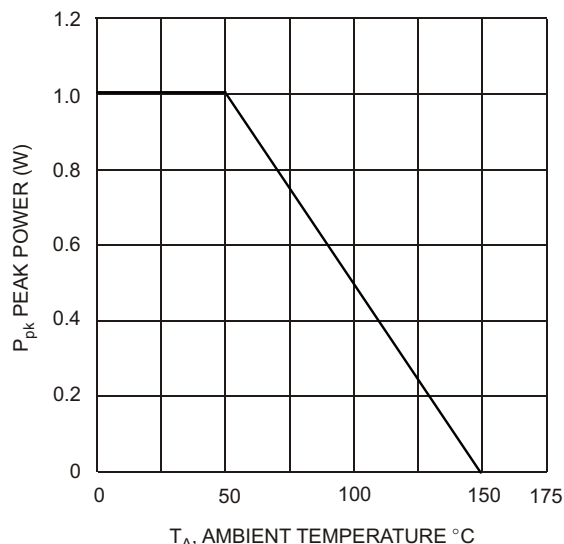


Fig. 1 Power Dissipation vs Ambient Temperature

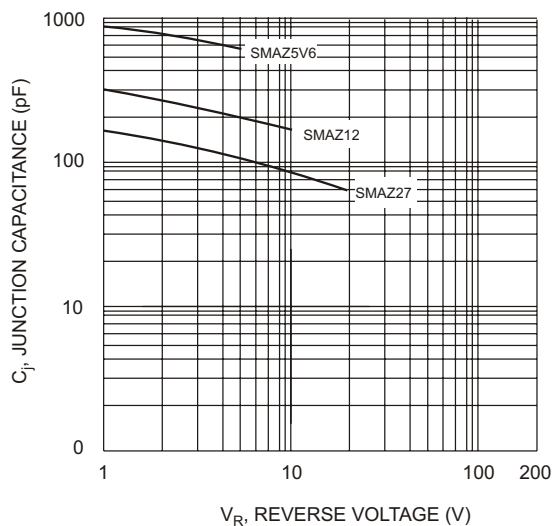


Fig. 2 Junction Capacitance vs Reverse Voltage

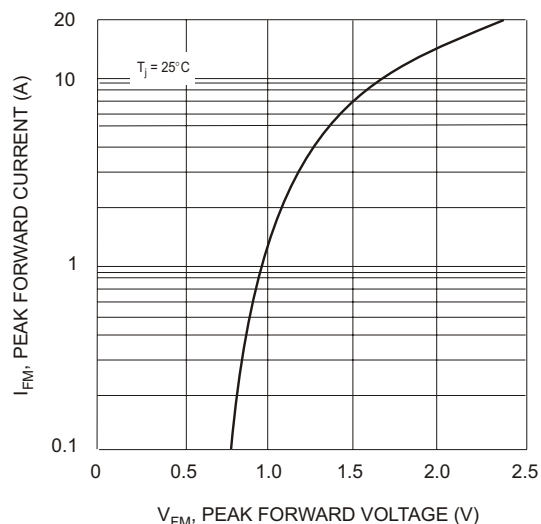


Fig. 3 Peak Forward Current vs Peak Forward Voltage

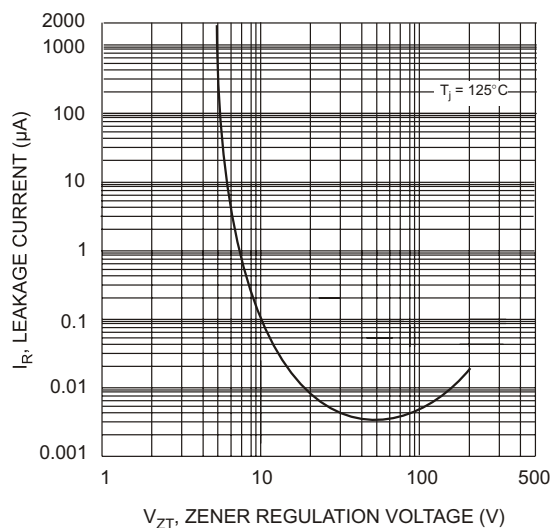


Fig. 4 Leakage Current vs Regulation Voltage

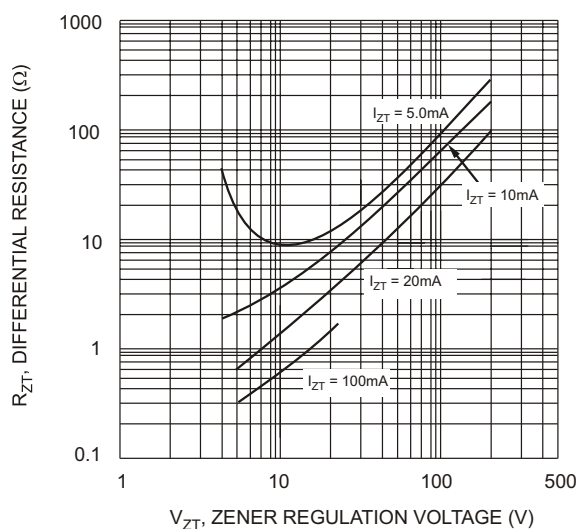


Fig. 5 Differential Resistance vs Regulation Voltage

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ORDER INFORMATION

- Packing information

Part Number	Case	Reel Size	QUANTITY
SMAZ5V1~SMAZ39	SMA	13 Inch	5000