

SMAZ5V1FL~SMAZ39FL

ZENER DIODES

VOLTAGE	5.1 to 39 Volt	POWER	1.0 Watt
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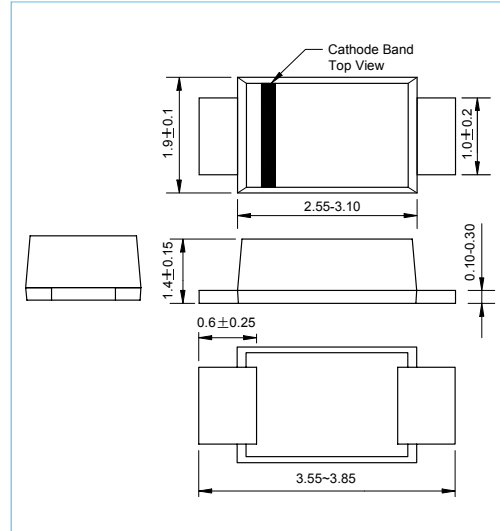
SOD-123FL Unit:mm

FEATURES

- Ideally Suited for Automatic Assembly
- High Surge Capability
- General Purpose, Medium Current
- 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 @ $I_F = 10\text{mA}$	V_F	1.2	V
Power Dissipation	P_d	1000	mW
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} (OHMS)		Maximum Zener Impedance Z_{ZK} (OHMS)		Reverse Current I_R (Max) @ V_R		I_{ZM} Max (Note 1)	Marking
	Nom	Min	Max	I_{ZT} (mA)	Max	I_{ZK} (mA)	Max	μA	V	mA	
SMAZ5V1FL	5.10	4.84	5.40	100	5.0	1.0	500	2.5	1.0	196	Z5V1
SMAZ5V6FL	5.60	5.32	5.88	100	2.0	2.0	250	5.0	2.0	179	Z5V6
SMAZ6V2FL	6.20	5.89	6.51	100	2.0	2.0	200	5.0	3.0	161	Z6V2
SMAZ6V8FL	6.80	6.46	7.14	100	2.0	1.0	200	5.0	4.0	147	Z6V8
SMAZ7V5FL	7.50	7.13	7.88	100	2.0	1.0	450	5.0	5.0	133	Z7V5
SMAZ8V2FL	8.20	7.79	8.61	100	2.0	1.0	200	5.0	6.0	122	Z8V2
SMAZ9V1FL	9.10	8.65	9.56	50	4.0	1.0	200	5.0	7.0	110	Z9V1
SMAZ10FL	10.00	9.50	10.50	50	4.0	1.0	200	1.0	7.6	100	Z10
SMAZ12FL	12.00	11.40	12.60	50	7.0	1.0	150	1.0	9.1	83	Z12
SMAZ15FL	15.00	14.25	15.75	50	10.0	1.0	150	1.0	11.4	67	Z15
SMAZ16FL	16.00	15.20	16.80	25	15.0	1.0	150	0.5	12.2	63	Z16
SMAZ18FL	18.00	17.10	18.90	25	15.0	1.0	150	0.5	13.7	56	Z18
SMAZ20FL	20.00	19.00	21.00	25	15.0	1.0	180	0.5	15.2	50	Z20
SMAZ22FL	22.00	20.90	23.10	25	15.0	1.0	180	0.5	16.7	45	Z22
SMAZ24FL	24.00	22.80	25.20	25	15.0	1.0	180	0.5	18.2	42	Z24
SMAZ27FL	27.00	25.65	28.35	25	15.0	1.0	200	0.5	20.5	37	Z27
SMAZ30FL	30.00	28.50	31.50	25	15.0	1.0	250	0.5	22.8	33	Z30
SMAZ33FL	33.00	31.35	34.65	25	15.0	1.0	300	0.5	25.1	30	Z33
SMAZ36FL	36.00	34.20	37.80	10	40.0	1.0	350	0.5	27.4	28	Z36
SMAZ39FL	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

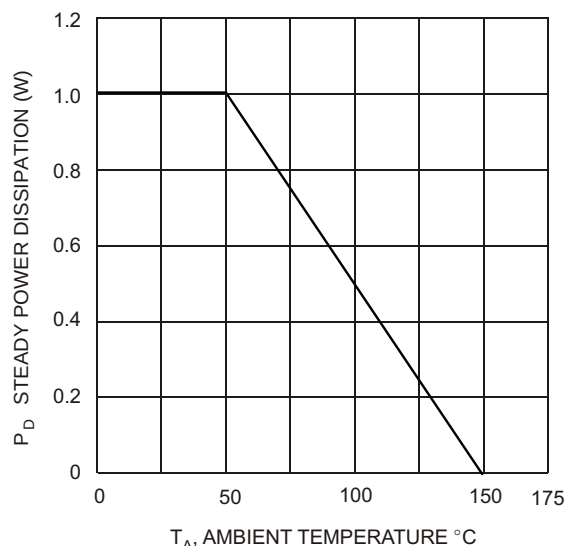


Fig. 1 Power Dissipation vs Ambient Temperature

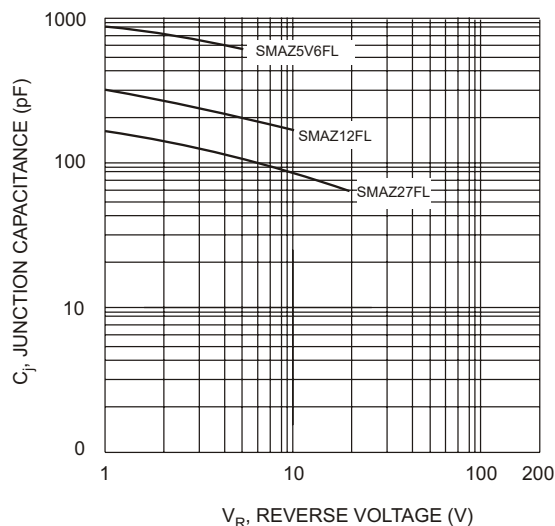


Fig. 2 Junction Capacitance vs Reverse Voltage

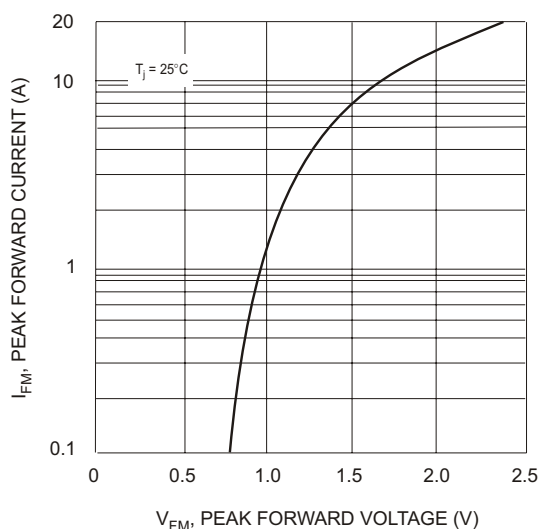


Fig. 3 Peak Forward Current vs Peak Forward Voltage

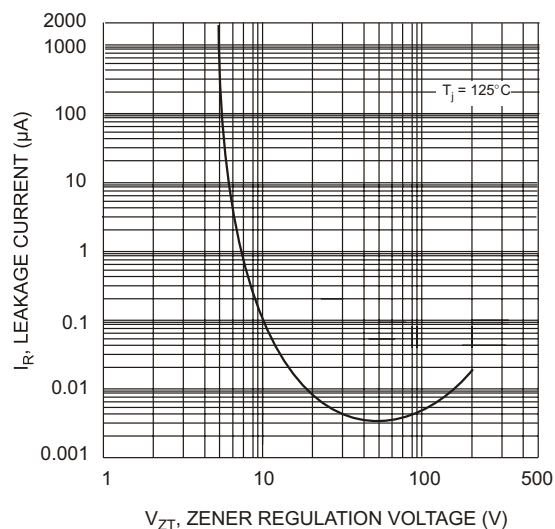


Fig. 4 Leakage Current vs Regulation Voltage

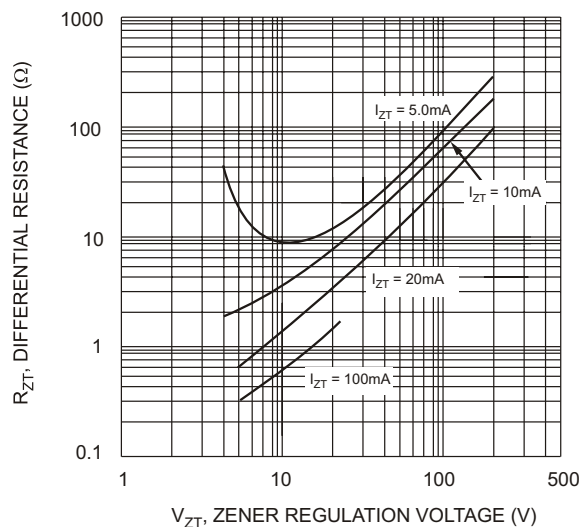


Fig. 5 Differential Resistance vs Regulation Voltage

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ORDER INFORMATION

- Packing information

Part Number	Case	Reel Size	QUANTITY
SMAZ5V1FL~SMAZ39FL	SOD-123FL	7 Inch	7500