JG® Techology

PRODUCT DATA SHEET

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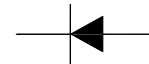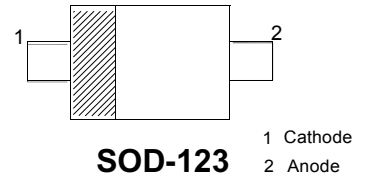Datasheet   Resources   Samples

Features
• Low forward voltage

Applications
• Ultra high-speed switching
• Voltage clamping
• Protection circuits

SOD-123

1 Cathode
2 Anode

Absolute Maximum Ratings (T_a = 25 °C)

Parameter	Symbol	Value	Unit
Reverse Voltage	V_R	30	V
Forward Current	I_F	200	mA
Repetitive Peak Forward Current	I_{FRM}	300	mA
Peak Forward Surge Current (t_p = 10 ms)	I_{FSM}	600	mA
Power Dissipation	P_D	230	mW
Thermal Resistance from Junction Ambient	R_{thJA}	500	K/W
Junction Temperature	T_J	125	°C
Storage Temperature Range	T_{stg}	- 65 to + 150	°C

Characteristics at T_a = 25 °C

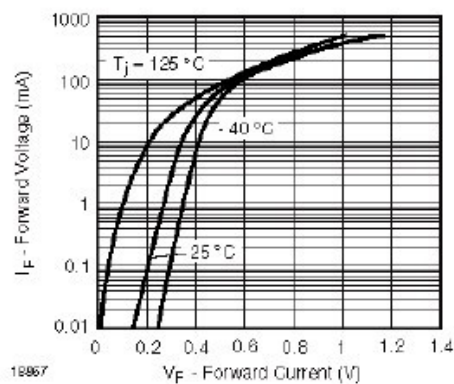| Parameter	Symbol	Max.	Unit
Forward Voltage at I_F = 0.1 mA at I_F = 1 mA at I_F = 10 mA at I_F = 30 mA at I_F = 100 mA	V_F	240 320 400 500 800	mV
Reverse Current at V_R = 25 V	I_R	2	µA
Total Capacitance at V_R = 1 V, f = 1 MHz	C_T	10	pF
Reverse Recovery Time at I_F = 10 mA, V_R = 6 V, I_R = 10 mA, R_L = 100 Ω	t_{rr}	6	ns

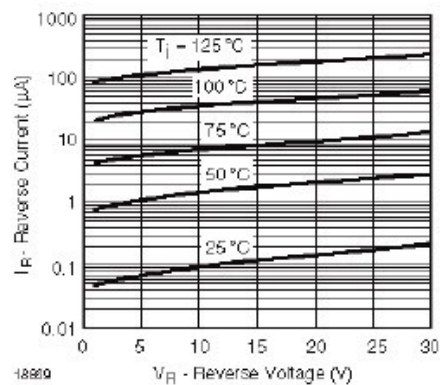Figure 1. Typical Forward Voltage Forward Current at Various Temperatures

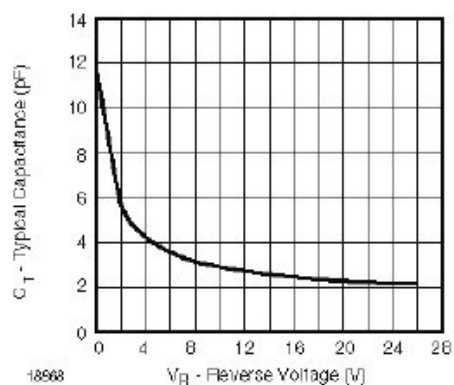Figure 3. Typical Variation of Reverse Current at Various Temperatures

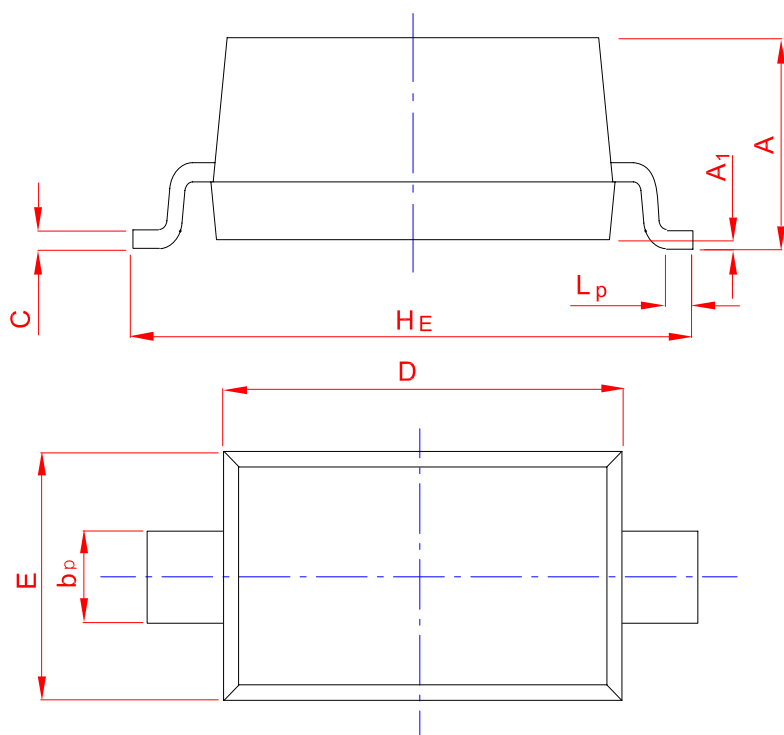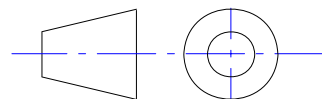Figure 2. Typical Capacitance °C vs. Reverse Applied Voltage V_R

PACKAGE OUTLINE

Plastic surface mounted package; 2 leads   **SOD-123**

UNIT	A	b_p	C	D	E	H_E	A_1	L_p
mm	1.20	0.60	0.135	2.75	1.65	3.85	0.10	0.50
	0.90	0.50	0.100	2.55	1.55	3.55	0.01	0.20

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