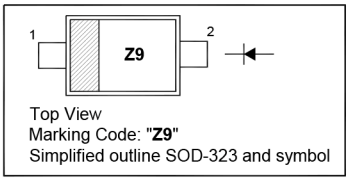
SILICON SCHOTTKY DIODE

Features

- High current rectifier Schottky diode with very low V_F drop
- For power supply applications
- For clamping and protection in low voltage applications
- For detection and step-up-conversion

PINNING

PIN	DESCRIPTION
1	Cathode
2	Anode



Top View
Marking Code: "**Z9**"
Simplified outline SOD-323 and symbol

Absolute Maximum Ratings (T_a = 25 °C)

Parameter	Symbol	Value	Unit
Reverse Voltage	V_R	10	V
Forward Current	I_F	3	A
Non-repetitive Peak Surge Forward Current (t ≤ 10 ms)	I_{FSM}	5	A
Total Power Dissipation	P_{tot}	1350	mW
Junction Temperature	T_J	150	°C
Operating Temperature Range	T_{op}	- 55 to + 125	°C
Storage Temperature Range	T_{stg}	- 55 to + 150	°C

Characteristics at T_a = 25 °C

Parameter	Symbol	Min.	Max.	Unit
Forward Voltage at I_F = 10 mA at I_F = 100 mA at I_F = 500 mA at I_F = 1000 mA	V_F	 0.2 0.26 0.32 0.36	 0.3 0.38 0.5 0.6	V
Reverse Current at V_R = 5 V at V_R = 8 V at V_R = 5 V, T_a = 80 °C at V_R = 8 V, T_a = 80 °C	I_R	 - - - -	 15 25 800 1500	µA
Total Capacitance at V_R = 5 V, f = 1 MHz	C_T	12	30	pF

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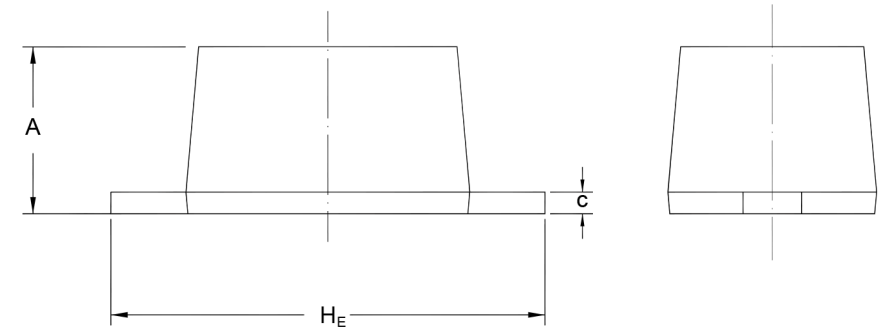
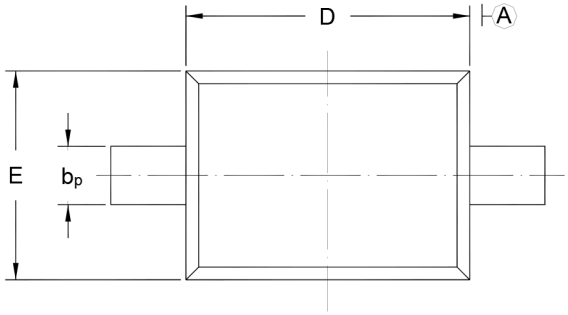
PACKAGE OUTLINE

Plastic surface mounted package; 2 leads **SOD-323**





UNIT	A	b_p	C	D	E	H_E
mm	1.10 0.80	0.40 0.25	0.15 0.10	1.80 1.60	1.35 1.15	2.80 2.30

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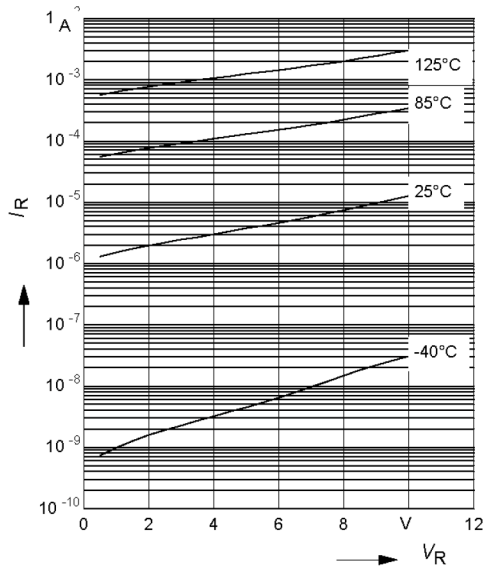
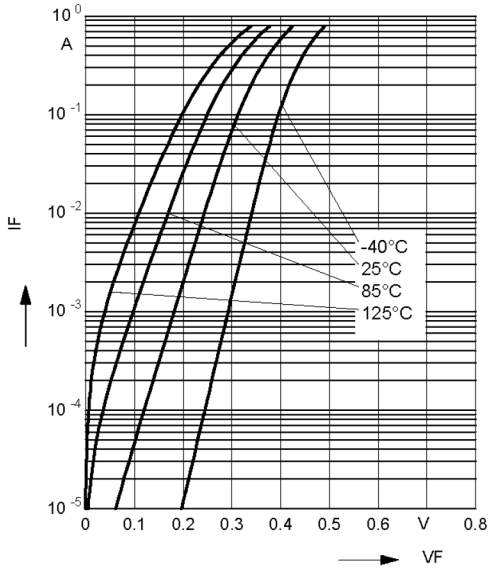
Reverse current $I_R = f(V_R)$

T_A = Parameter



Forward current $I_F = f(V_F)$

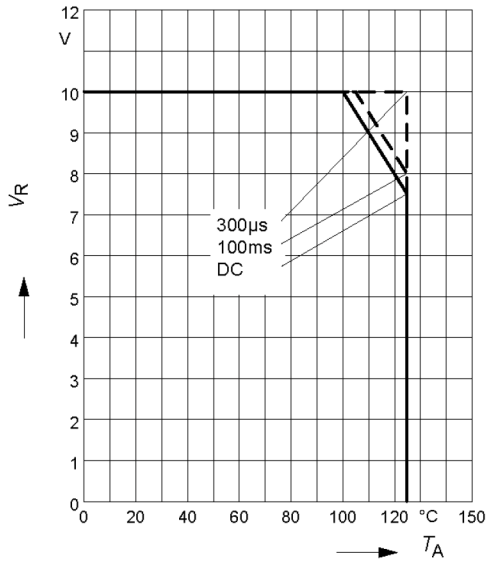
T_A = Parameter



Permissible Reverse voltage $V_R = f(T_A)$

t_p = Parameter; duty cycle < 0.01

Device mounted on PCB with R_{th} = 160 K/W



Forward current $I_F = f(T_S)$