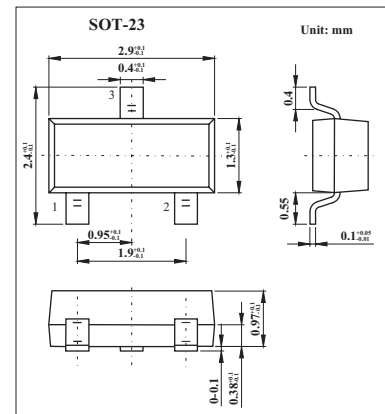


Silicon Switching Diode

BAR99

■ Features

- For high-speed switching

■ Absolute Maximum Ratings $T_a = 25^\circ\text{C}$

Parameter	Symbol	Value	Unit
Reverse voltage	V_R	70	V
Peak reverse voltage	V_{RM}	70	V
Forward current	I_F	250	mA
Surge forward current, $T = 1 \mu\text{s}$	I_{FS}	4.5	A
Total power dissipation, $T_s = 54^\circ\text{C}$	P_{tot}	370	mW
Junction temperature	T_j	150	$^\circ\text{C}$
Storage temperature range	T_{stg}	-65 to +150	$^\circ\text{C}$
Junction ambient (Note 1)	$R_{th JA}$	≤ 330	K/W
Junction soldering point	$R_{th JS}$	≤ 260	K/W

Note

1. Package mounted on epoxy pcb $40\text{ mm} \times 40\text{ mm} \times 1.5\text{ mm}/6\text{ cm}^2\text{ Cu}$.

Silicon Switching Diode

BAR99

■ Electrical Characteristics $T_a = 25^\circ\text{C}$

Parameter	Symbol	Conditions	Min	Typ	Max	Unit
Breakdown voltage	V_R	$I_R = 100 \mu\text{A}$	70			V
Forward voltage	V_F	$I_F = 1 \text{ mA}$			715	mV
		$I_F = 10 \text{ mA}$			855	
		$I_F = 50 \text{ mA}$			1000	
		$I_F = 150 \text{ mA}$			1250	
Reverse current	I_R	$V_R = 70 \text{ V}$			2.5	μA
		$V_R = 25 \text{ V}, T_A = 150^\circ\text{C}$			30	
		$V_R = 70 \text{ V}, T_A = 150^\circ\text{C}$			50	
Diode capacitance	C_D	$V_R = 0 \text{ V}, f = 1 \text{ MHz}$			1.5	pF
Reverse recovery time	t_{rr}	$I_F = I_R = 10 \text{ mA}, R_L = 100 \Omega$ measured at $I_R = 1 \text{ mA}$			6	ns

■ Marking

Marking	JGs
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