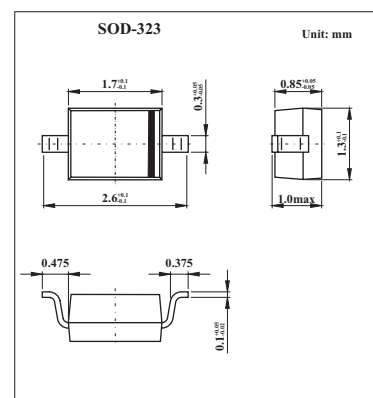


SILICON SWITCHING DIODE

BAS16-03W

■ Features

- For high-speed Switching applications

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

Parameter	Symbol	Value	Unit
Diode reverse voltage	V_R	80	V
Peak reverse voltage	V_{RM}	85	
Forward current	I_F	250	mA
Non-repetitive peak surge forward current $t = 1.0 \mu s$	I_{FSM}	4.5	A
Total power dissipation $T_s \leq 116^\circ\text{C}$	P_{tot}	250	mW
Junction Temperature	T_J	150	$^\circ\text{C}$
Storage Temperature	T_{stg}	-65 to +150	
Junction soldering point ⁽¹⁾	R_{thJS}	≤ 135	K/W

Note:

1. For calculation of R_{thJA} please refer to Application Note Thermal Resistance

SILICON SWITCHING DIODE

BAS16-03W

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

Parameter	Symbol	Min	Typ	Max	Unit
Breakdown voltage $I_{(BR)} = 100\ \mu\text{A}$	$V_{(BR)}$	85			V
Reverse current $V_R = 75\text{ V}$ $V_R = 25\text{ V}, T_a = 150^\circ\text{C}$ $V_R = 75\text{ V}, T_a = 150^\circ\text{C}$	I_R			0.1	μA
				30	
				50	
Forward voltage $I_F = 1\text{ mA}$ $I_F = 10\text{ mA}$ $I_F = 50\text{ mA}$ $I_F = 100\text{ mA}$ $I_F = 150\text{ mA}$	V_F			715	mV
				855	
				1000	
				1200	
				1250	
Forward recovery voltage $I_F = 10\text{ mA}, t_p = 20\text{ ns}$	V_{fr}			1.75	V
Diode capacitance $V_R = 0; f = 1\text{ MHz}$	C_T			2	V
Reverse Recovery Time $I_F = 10\text{ mA}; I_R = 10\text{ mA};$ measured at $I_R = 1\text{ mA}, R_L = 100\ \Omega$	t_{rr}			4	nS

■ Marking

Marking	B
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