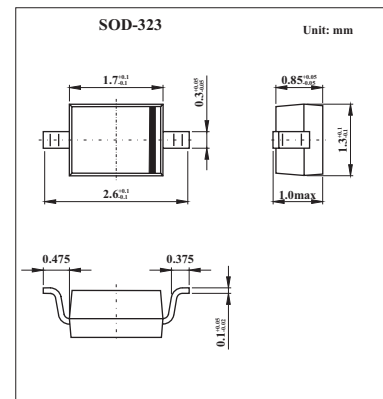


## SILICON SWITCHING DIODE

### 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	$I_{FSM}$	4.5	A
Total power dissipation	$P_{tot}$	250	mW
Junction Temperature	$T_j$	150	$^\circ\text{C}$
Storage Temperature	$T_{stg}$	-65 to +150	
Junction soldering point <sup>(1)</sup>	$R_{thjS}$	$\leq 135$	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	$\mu\text{A}$
				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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