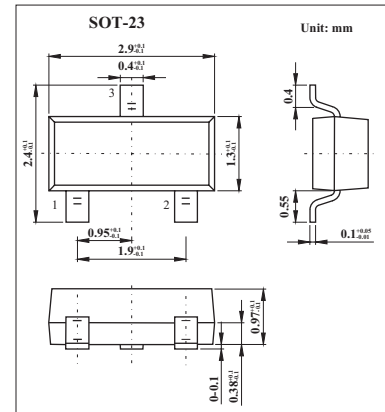


High-speed diode

BAS16

■ Features

- Small plastic SMD package
- High switching speed: max. 4ns
- Continuous reverse voltage: max. 75 V
- Repetitive peak reverse voltage: max. 85 V
- Repetitive peak forward current: max. 500 mA.



■ Absolute Maximum Ratings Ta = 25°C

Parameter	Symbol	Conditions	Min	Max	Unit
repetitive peak reverse voltage	V _{RRM}			60	V
Continuous reverse voltage	V _R			60	V
Continuous forward current	I _F	Note 1		250	mA
Repetitive peak forward current	I _{FRM}			600	mA
Non-repetitive peak forward current	I _{FSM}	square wave; T _j = 25 °C prior to surge; t = 1 μs t = 1 ms t = 1 s		4 1 0.5	A
Total power dissipation	P _{tot}	T _{mab} = 25 °C; Note 1		250	mW
Storage temperature	T _{stg}		-65	+150	°C
Junction temperature	T _j			150	°C

Note

1. Device mounted on an FR4 printed-circuit board.

High-speed diode

BAS16

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

Parameter	Symbol	Conditions	Max	Unit
Forward voltage	V_F	$I_F = 1 \text{ mA};$	715	mV
		$I_F = 10 \text{ mA};$	855	
		$I_F = 50 \text{ mA};$	1	V
		$I_F = 100 \text{ mA};$	1.25	
Reverse current	I_R	$V_R = 25 \text{ V};$	30	nA
		$V_R = 75 \text{ V};$	1	μA
		$V_R = 75 \text{ V}; T_j = 150^\circ\text{C}$	30	μA
		$V_R = 75 \text{ V}; T_j = 150^\circ\text{C}$	50	μA
Diode capacitance	C_d	$f = 1 \text{ MHz}; V_R = 0;$	1.5	pF
Reverse recovery time	t_{rr}	when switched from $I_F = 10 \text{ mA}$ to $I_R = 10 \text{ mA};$ $R_L = 100 \Omega$; measured at $I_R = 1 \text{ mA};$	4	ns
Forward recovery voltage	V_{fr}	when switched from $I_F = 10 \text{ mA}; t_r = 20 \text{ ns};$	1.75	V

■ Marking

Marking	A6p
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