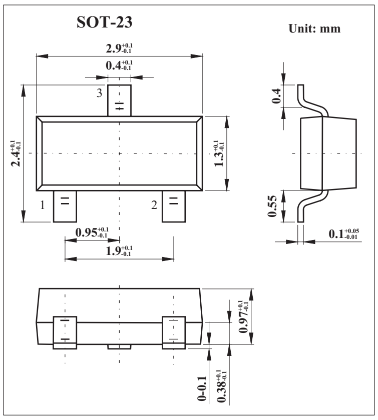
High-speed diode

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℃

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; Tj =25 ℃ prior to surge; t = 1 µs t = 1 ms t = 1 s		 4 1 0.5	A
Total power dissipation	P_{tot}	Tmab = 25 ℃; Note 1		250	mW
Storage temperature	T_{stg}		-65	+150	℃
Junction temperature	T_j			150	℃

Note

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

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■ Electrical Characteristics Ta = 25℃

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

■ Marking

Marking	A6p