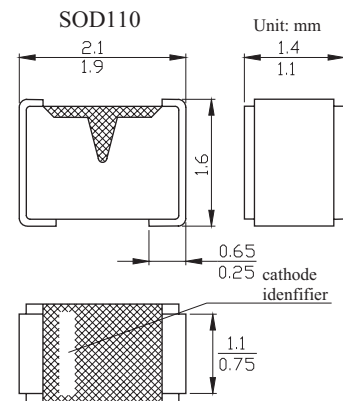


HIGH-SPEED SWITCHING DIODE

BAS216

■ Features

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



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

Parameter	Symbol	Conditions	Min	Max	Unit
Continuous peak reverse voltage	VRRM			85	V
Continuous reverse voltage	V _R			75	V
Continuous forward current	I _F	Note 1		250	mA
Repetitive peak forward current	I _{FSM}			500	mA
Non-repetitive peak forward current	I _{FSM}	square wave; $T_j = 25^\circ\text{C}$ prior to surge; $t = 1\ \mu\text{s}$ $t = 1\ \text{ms}$ $t = 1\ \text{s}$		4 1 0.5	A
Total power dissipation	P _{tot}	$T_{\text{amb}} = 25^\circ\text{C}$; note 1		400	mW
Storage temperature	T _{stg}		-65	+150	$^\circ\text{C}$
Junction temperature	T _j			150	$^\circ\text{C}$

Note

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

HIGH-SPEED SWITCHING DIODE

BAS216

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

Parameter	Symbol	Conditions	Min	Max	Unit
forward voltage	V_F	$I_F = 1 \text{ mA}$		715	mV
		$I_F = 10 \text{ mA}$		855	mV
		$I_F = 50 \text{ mA}$		1	V
		$I_F = 150 \text{ mA}$		1.25	V
capacitance reverse current	I_R	$V_R = 25 \text{ V}$		30	nA
		$V_R = 75 \text{ V}$		1	μA
		$V_R = 25 \text{ V}, T_j = 150^\circ\text{C}$		30	μA
		$V_R = 25 \text{ V}, T_j = 150^\circ\text{C}$		50	μA
diodes capacitance	C_d	$V_R = 1 \text{ V}, f = 1 \text{ MHz}$		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_{rr}	when switched from $I_F = 10 \text{ mA}; t_r = 20 \text{ ns}$		1.75	V

Note

1.Pulsed test: $t_p = 300 \mu\text{s}, \delta = 0.02$.

■ Marking

Marking	A6
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