

High-Speed Double Diode

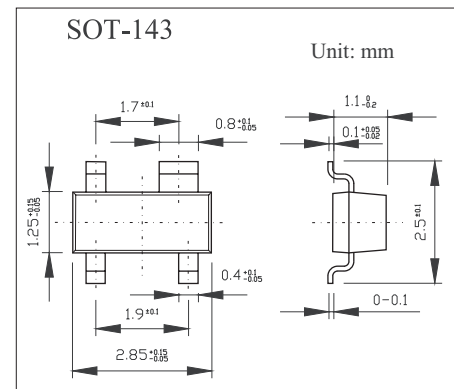
BAS28

■ Features

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

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

Parameter	Symbol	Test Condition	MIN	MAX	Unit
repetitive peak reverse voltage	V_{RMM}	200		85	V
continuous reverse voltage	V_R	100		75	V
continuous forward current	I_F	250		210	mA
repetitive peak forward current	I_{FRM}	150		500	mA
non-repetitive peak forward current	I_{FSM}	square wave; $T_j = 25^\circ\text{C}$ prior to surge			A
		$t = 1\ \mu\text{s}$		4	
		$t = 1\ \text{ms}$		1	
		$t = 1\ \text{s}$		0.5	
total power dissipation	P_{tot}	$T_{amb} = 25^\circ\text{C}$	-65	250	mW
storage temperature	T_{stg}			+150	$^\circ\text{C}$
junction temperature	T_j			150	$^\circ\text{C}$



BAS28■ Electrical Characteristics $T_a = 25^\circ\text{C}$

Parameter	Symbol	Test Condition	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
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
		$V_R = 75 \text{ V}; T_j = 150^\circ\text{C}$		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 $I_R = 10 \text{ mA}$;		4	ns
		$R_L = 100 \Omega$ measured at $I_R = 1 \text{ mA}$;			
forward recovery voltage	V_{fr}	when switched from $I_F = 10 \text{ mA}; t_r = 20 \text{ ns}$;		1.75	V

■ Marking

Marking	JT
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