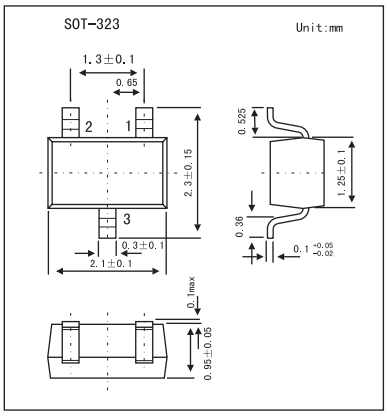
High-speed diode

BAL99W



Features

- Very small plastic SMD envelope
- 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 Ta = 25℃

Parameter	Symbol	Conditions	Min	Max	Unit
repetitive peak reverse voltage	V_{RRM}			85	V
continuous reverse voltage	V_R			75	V
continuous forward current	I_F			150	mA
repetitive peak forward current	I_{FRM}			500	mA
non-repetitive peak forward current	I_{FSM}	square wave; T_j = 25℃ prior to surge; t = 1 μ s t = 1 ms t = 1 s		 4 1 0.5	A
total power dissipation	P_{tot}	$T_{a\ mb}$ = 25 ℃		200	mW
Storage temperature range	T_{stg}		-65	+150	℃
Junction temperature	T_j			150	℃
thermal resistance from junction to tie-point	$R_{th\ j\text{-}t\ p}$			300	K/W
thermal resistance from junction to ambient	$R_{th\ j\text{-}a}$			625	K/W

BAL99W

■ Electrical Characteristics Ta = 25℃

Parameter	Symbol	Test 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 = 150 mA	1.25	
Reverse current	I_R	V_R = 25 V	30	nA
		V_R = 75 V	1	μA
		V_R = 25 V, T_j = 150 ℃	30	μA
		V_R = 25 V, T_j = 150 ℃	50	μA
Diode capacitance	C_d	f = 1.0 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	JF