## SMD Type

## 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°C

Parameter	Symbol	Conditions	Min	Max	Unit
repetitive peak reverse voltage	Vrrm			85	V
continuous reverse voltage	Vr			75	V
continuous forward current	lF			150	mA
repetitive peak forward current	IFRM			500	mA
non-repetitive peak forward current	IFSM	square wave; Tj = 25℃ prior to surge; t = 1 µ s t = 1 ms t = 1 s		4 1 0.5	A
total power dissipation	Ptot	Ta mb = 25 °C		200	mW
Storage temperature range	Tstg		-65	+150	°C
Junction temperature	Tj			150	°C
thermal resistance from junction to tie-po	pint Rth j-t p			300	K/W
thermal resistance from junction to ambient Rth j-a				625	K/W



# SMD Type

### BAL99W

### ■ Electrical Characteristics Ta = 25°C

Parameter	Symbol	Test Conditions	Max	Unit
Forward voltage		IF = 1 mA	715	mV
	VF	IF = 10 mA	855	
	VF	IF = 50 mA	1	v
		IF = 150 mA	1.25	
Reverse current		VR = 25 V	30	nA
	IR	Vr = 75 V	1	μA
	IR	VR = 25 V, Tj = 150 ℃	30	μA
		VR = 25 V, Tj = 150 ℃	50	μA
Diode capacitance	Cd	f = 1.0 MHz, VR = 0	1.5	pF
Reverse recovery time	4	when switched from $I_F = 10 \text{ mA}$ to $I_R = 10 \text{ mA}$ ;	4	20
	trr	RL = 100 $\Omega$ ; measured at IR = 1 mA	4	ns
Forward recovery voltage	Vfr	when switched from IF = 10 mA; tr = 20 ns	1.75	V

### Marking

Marking	JF

