

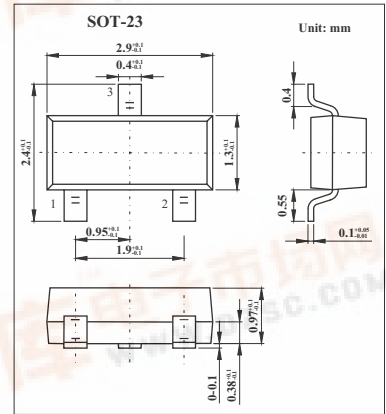
SMD Type Diodes

Low-leakage diode

BAS116

Features

- Plastic SMD package
- Low leakage current: typ. 3 pA
- Switching time: typ. 0.8 μs
- 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	IF			215	mA
Repetitive peak forward current	IFRM			500	mA
Non-repetitive peak forward current	IFSM	square wave; Tj = 25 °C prior to surge			A
		t = 1 μs		4	
		t = 1 ms		1	
		t = 1 s		0.5	
Total power dissipation	Ptot	Tamb = 25 °C; note 1		250	mW
Storage temperature	Tstg		-65	+150	°C
Junction temperature	Tj			150	°C
thermal resistance from junction to tie-point	Rth j-t p			330	K/W
thermal resistance from junction to ambient	Rth j-a			500	K/W

BAS116■ Electrical Characteristics $T_a = 25^\circ\text{C}$

Parameter	Symbol	Conditions	Typ	Max	Unit
Forward voltage	V_F	$I_F = 1\text{ mA}$		0.9	V
		$I_F = 10\text{ mA}$		1	
		$I_F = 50\text{ mA}$		1.1	
		$I_F = 150\text{ mA}$		1.25	
Reverse current	I_R	$V_R = 75\text{ V}$	0.003	5	nA
		$V_R = 75\text{ V}; T_j = 150^\circ\text{C}$	3	80	
Diode capacitance	C_d	$f = 1\text{ MHz}; V_R = 0$	2		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 $I_R = 1\text{ mA}$;	0.8	3	$\mu\text{ s}$

■ Marking

Marking	JVp
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