

SMD Type

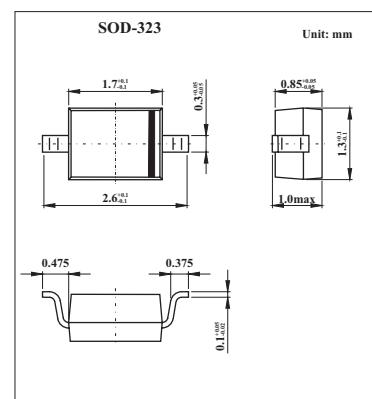
Diodes

High-Speed Diode

KAS316(BAS316)

■ Features

- Very 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	Rating	Unit
repetitive peak reverse voltage	V_{RRM}	85	V
continuous reverse voltage	V_R	75	V
continuous forward current	I_F	250	mA
repetitive peak forward current	I_{FRM}	500	mA
non-repetitive peak forward current	I_{FSM}	4	A
$t = 1 \text{ ms}$		1	A
$t = 1 \mu\text{s}$		0.5	A
power dissipation	P_D	400	mW
junction temperature	T_j	150	$^\circ\text{C}$
storage temperature	T_{stg}	-65 to +150	$^\circ\text{C}$

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

Parameter	Symbol	Testconditions	Min	Typ	Max	Unit
Forward voltage	V_F	$I_F = 1 \text{ mA}$ $I_F = 10 \text{ mA}$ $I_F = 50 \text{ mA}$ $I_F = 150 \text{ mA}$			715 855 1 1.25	mV mV V V
Leakage current	I_R	$V_R = 25 \text{ V}$ $V_R = 75 \text{ V}$ $V_R = 25 \text{ V}; T_j = 150^\circ\text{C}$ $V_R = 75 \text{ V}; T_j = 150^\circ\text{C}$			30 1 30 50	nA μA μA μA
Junction Capacitance	C_J	$V_R = 0, f = 1.0\text{MHz}$			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

■ Marking

Marking	A6
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