

Switching Diode

Primary characteristics			
Symbol	Parameter	Value	Unit
V_R	DC Blocking Voltage	100	V
I_o	Continuous Forward Current	250	mA
P_D	Power Dissipation	250	mW

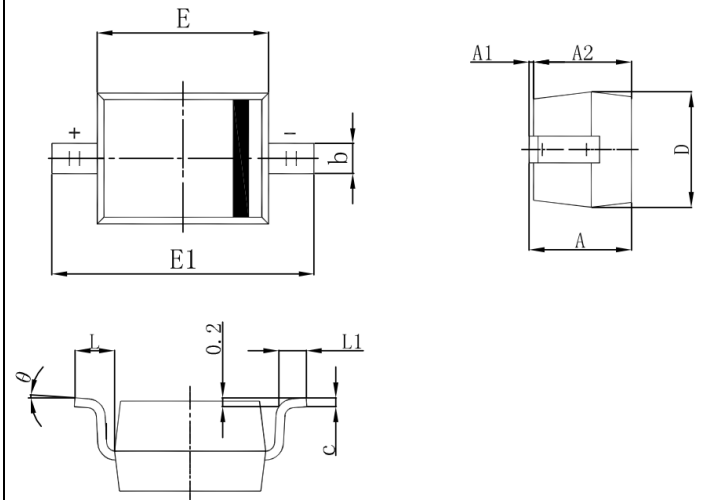
Features

- Very small plastic package
- High switching speed

Applications

- High-speed switching in e.g. surface mounted circuits

Case Dimensions



SOD-323

Symbol	Dimensions in Millimeters		Dimensions in Inches	
	Min	Max	Min	Max
A	-	1.100	-	0.043
A1	0.000	0.100	0.000	0.004
A2	0.800	1.000	0.031	0.039
b	0.250	0.350	0.010	0.014
c	0.080	0.150	0.003	0.006
D	1.200	1.400	0.047	0.055
E	1.600	1.800	0.063	0.071
E1	2.500	2.750	0.098	0.108
L	0.475 REF		0.019 REF	
L1	0.250	0.400	0.010	0.016
θ	0°	8°	0°	8°

Maximum Ratings (Ta=25°C unless otherwise specified)

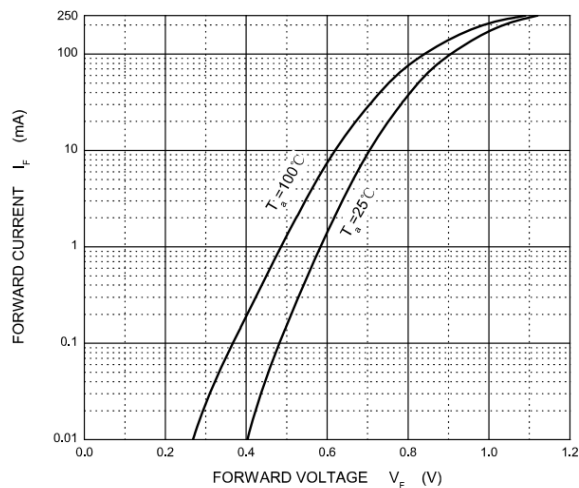
Parameter	Symbol	Value	Unit
Peak Repetitive Reverse Voltage	V_{RRM}	100	V
DC Blocking Voltage	V_R	100	V
Continuous Forward Current	I_o	250	mA
Non-repetitive Peak Forward Surge Current @t=8.3ms	I_{FSM}	2.0	A
Power Dissipation	P_D	250	mW
Thermal Resistance from Junction to Ambient	$R_{\theta JA}$	500	°C/W
Operation Junction and Storage Temperature Range	T_J, T_{stg}	-55~+150	°C

Electrical Characteristics ($T_a=25^\circ\text{C}$ unless otherwise specified)

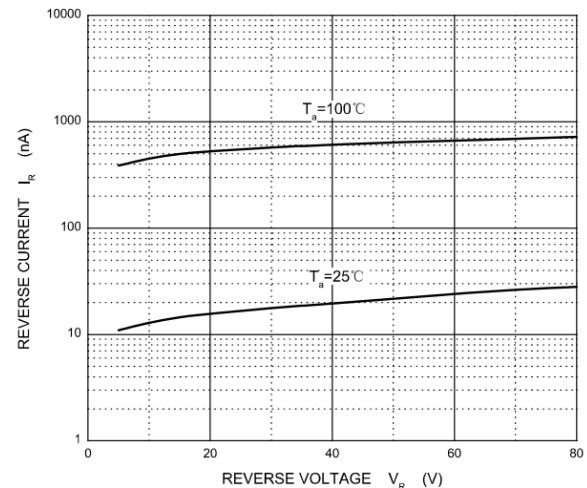
Parameter	Symbol	Test conditions	Value			Unit
			Min	Typ	Max	
Reverse Voltage	$V_{(BR)}$	$I_R=100\mu\text{A}$	100	-	-	V
Reverse Current	I_R	$V_R=25\text{V}$	-	-	30	nA
		$V_R=75\text{V}$	-	-	1	μA
Forward Voltage	V_F	$I_F=1\text{mA}$	-	-	0.715	V
		$I_F=10\text{mA}$	-	-	0.855	
		$I_F=50\text{mA}$	-	-	1	
		$I_F=150\text{mA}$	-	-	1.25	
Total Capacitance	C_{tot}	$V_R=0\text{V}$, $f=1\text{MHz}$	-	-	1.5	pF
Reverse Recovery Time	t_{rr}	$I_F=I_R=10\text{mA}$, $I_{rr}=0.1 \times I_R$	-	-	4	ns

Typical Characteristics

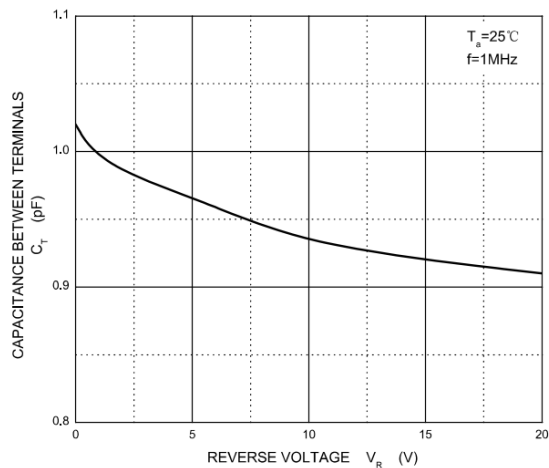
Forward Characteristics



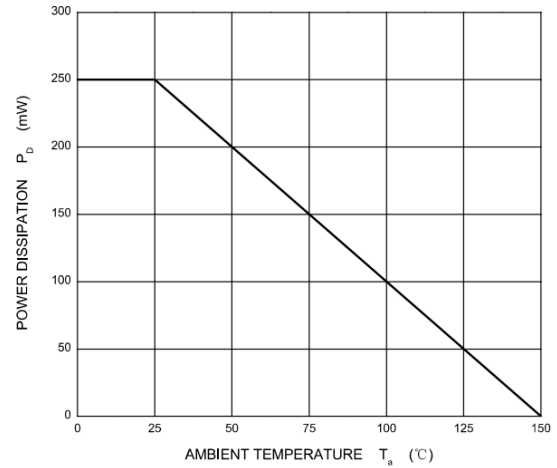
Reverse Characteristics



Capacitance Characteristics



Power Derating Curve



Ordering information			
Part Number	Package	Shipping Quantity	Dimensions
BAS316	SOD-323	3000 pcs / reel	---

Disclaimer

Akyga semi reserves the right to make changes without notice to any product specification herein, to make corrections, modifications, enhancements or other changes. Akyga semi or anyone on its behalf assumes no responsibility or liability for any errors or inaccuracies. Data sheet specifications and its information contained are intended to provide a product description only. "Typical" parameters which may be included on Akyga semi data sheets and/ or specifications can and do vary in different applications and actual performance may vary over time. Akyga semi does not assume any liability arising out of the application or use of any product or circuit. Akyga semi products are not designed, intended or authorized for use in medical, life-saving implant or other applications intended for life-sustaining or other related applications where a failure or malfunction of component or circuitry may directly or indirectly cause injury or threaten a life without expressed written approval of Akyga semi. Customers using or selling Akyga semi components for use in such applications do so at their own risk and shall agree to fully indemnify Akyga semi and its subsidiaries harmless against all claims, damages and expenditures.