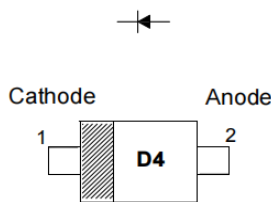


Features

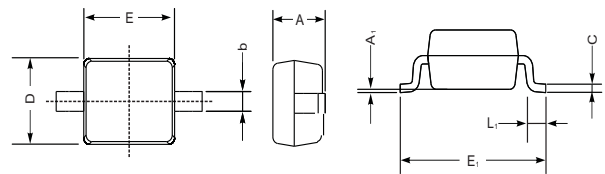
- Fast switching speed
- Ultra-small surface mount package
- For general purpose switching applications

MARKING: D4



SOD-323

SOD323



UNIT		A	C	D	E	E ₁	b	L ₁	A ₁
mm	max	1.1	0.15	1.4	1.8	2.75	0.4	0.45	0.2
	min	0.8	0.08	1.2	1.4	2.55	0.25	0.2	—
mil	max	43	5.9	55	70	108	16	16	8
	min	32	3.1	47	63	100	9.8	7.9	—

Absolute Maximum Ratings (T_a = 25 °C)

Parameter	Symbol	Value	Unit
Repetitive Reverse Voltage	V _{RRM}	85	V
Average Rectified Forward Current	I _{F(AV)}	200	mA
Non-repetitive Peak Forward Surge Current Pulse Width = 1 s Pulse Width = 1 us	I _{FSM}	0.5 4	A
Power Dissipation	P _{tot}	250	mW
Thermal Resistance Junction to Ambient	R _{θJA}	833	°C/W
Junction Temperature	T _j	150	°C
Storage Temperature Range	T _{stg}	- 55 to + 150	°C

BAS416WS

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

Parameter	Symbol	Min.	Max.	Unit
Breakdown Voltage at $I_R = 5 \mu\text{A}$ at $I_R = 100 \mu\text{A}$	V_R	75 100	- -	V V
Forward Voltage at $I_F = 1\text{mA}$ $I_F = 10\text{mA}$ $I_F = 50\text{mA}$ $I_F = 150\text{mA}$	V_F	-	0.9 1 1.1 1.25	V
Reverse Current at $V_R = 20\text{V}$ at $V_R = 75\text{V}$	I_R	- -	25 1	nA μA
Diode Capacitance at $V_R = 0\text{V}$, $f = 1\text{MHz}$	C_{tot}	-	4	pF
Reverse Recovery Time at $I_{rr} = 0.1 \times I_R$, $I_F = I_R = 10\text{mA}$, $R_L = 100\ \Omega$	t_{rr}	-	3	ns

RATING AND CHARACTERISTIC CURVES (BAS416WS)

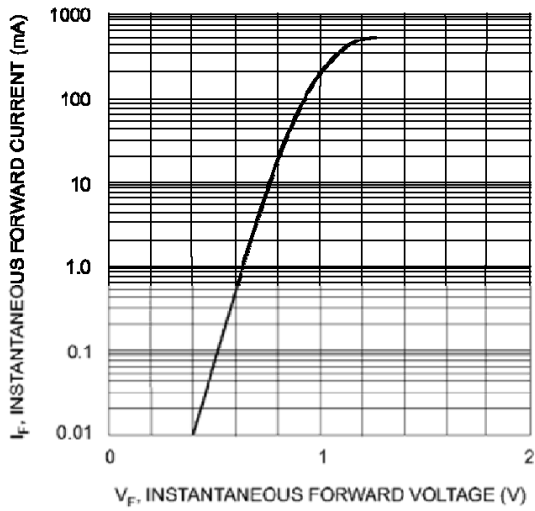


Fig. 1 Forward Characteristics

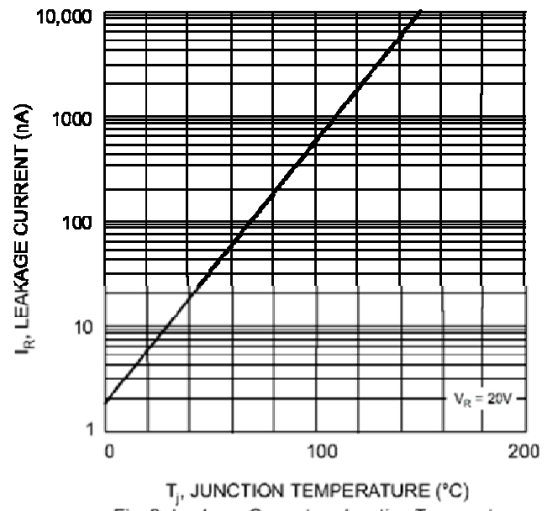


Fig. 2 Leakage Current vs Junction Temperature