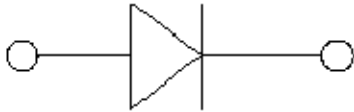


## High Speed Switching Diode



### Features

- $V_R$  100V
- $I_{FAV}$  250mA

### Typical Applications

- Extreme fast switches

### Mechanical Data

- **Package:** SOD323
- **Terminals:** Tin plated leads, solderable per J-STD-002 and JESD22-B102
- **Polarity:** Cathode line denotes the cathode end
- **Marking:** A6

### ■ Maximum Ratings ( $T_a=25^\circ\text{C}$ Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	Conditions	VALUE
Repetitive peak reverse voltage	$V_{RRM}$	V		100
Peak forward surge current	$I_{FSM}$	A	$t_p=300\mu\text{s}$	2
Average forward current	$I_{FAV}$	mA		250
Power dissipation	$P_{tot}$	mW		200
Thermal Resistance	$R_{thJA}$	K/W		625
Maximum junction temperature	$T_j$	$^\circ\text{C}$		-55 to +150
Storage temperature range	$T_{stg}$	$^\circ\text{C}$		-55 to +150

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

PARAMETER	SYMBOL	UNIT	Conditions	Min	Max
Maximum Forward voltage	V <sub>F</sub>	V	$I_F=1\text{mA}$		0.715
			$I_F=10\text{mA}$		0.855
			$I_F=50\text{mA}$		1.00
			$I_F=150\text{mA}$		1.25
Maximum Reverse current	I <sub>R</sub>	nA	$V_R=20\text{V}$		25
	I <sub>R</sub>	$\mu\text{A}$	$V_R=75\text{V}$		1.0
Minimum Breakdown voltage	$V_R$	V	$I_R=100\mu\text{A}$	100	
Maximum Diode capacitance	$C_D$	pF	$V_R=V_F=0\text{V}, f=1\text{MHz}$		4
Maximum Reverse recovery time	$t_{rr}$	ns	$I_F=10\text{mA}, V_R=6\text{V}, I_{rr}=1\text{mA}, R_L=100\Omega$		4

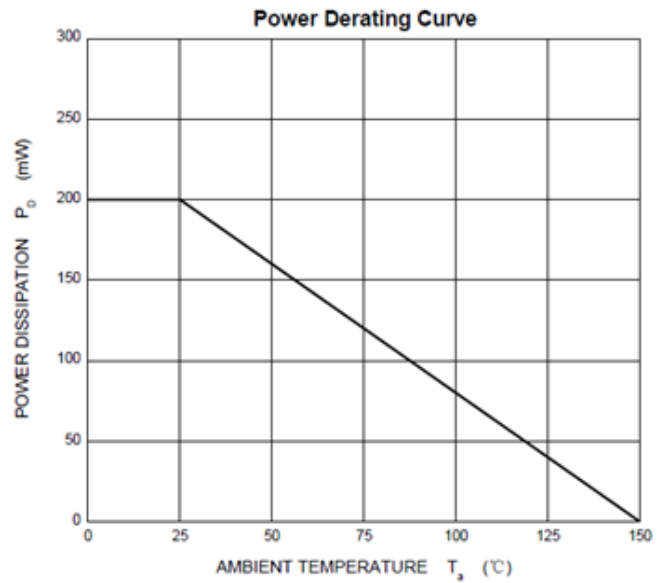
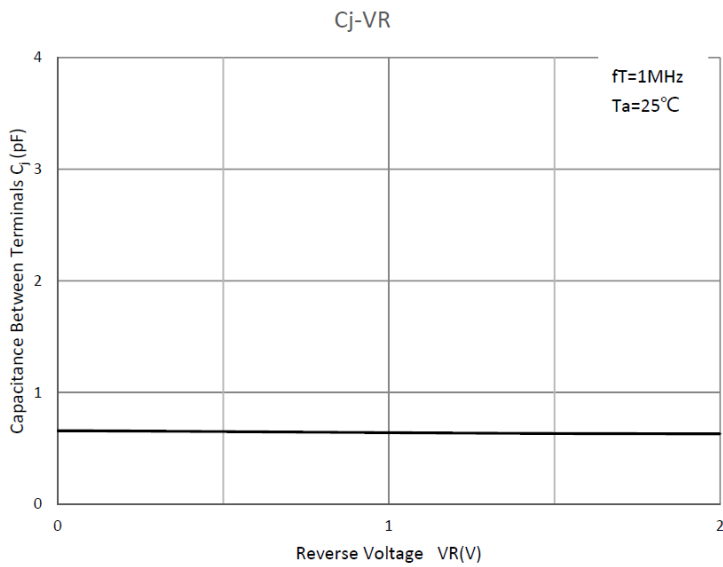
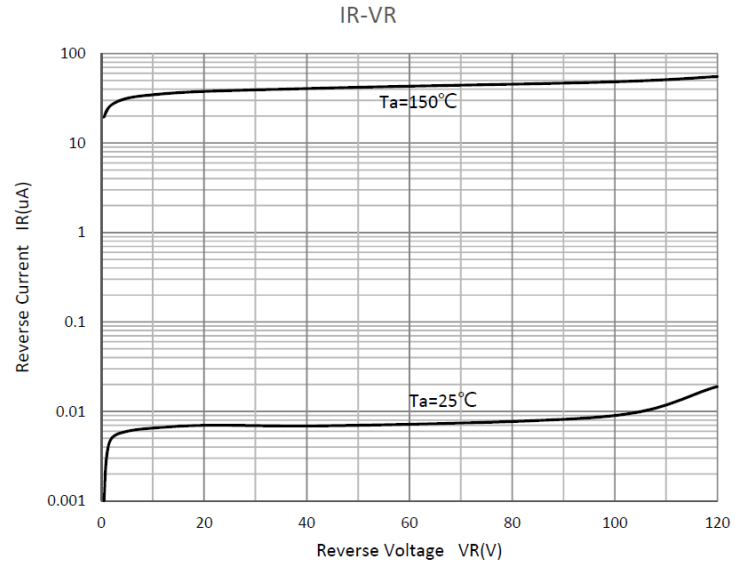
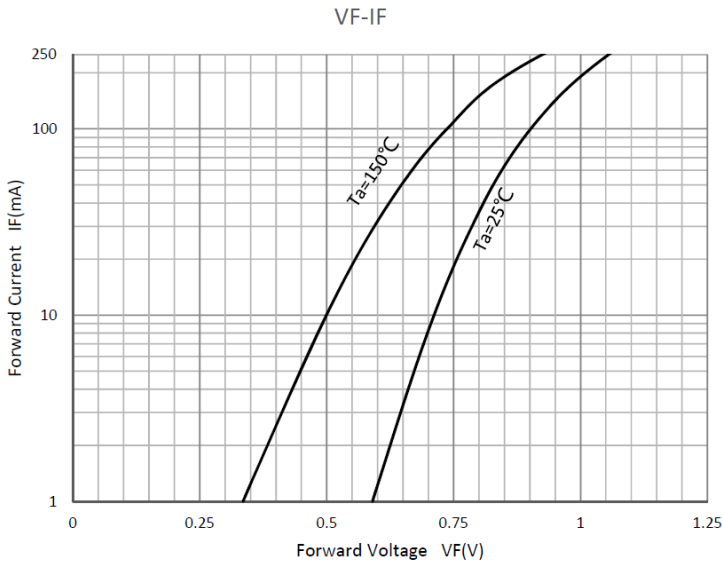


# BAS316

## Ordering Information (Example)

PREFERRED P/N	PACKING CODE	UNIT WEIGHT(g)	MINIMUM PACKAGE(pcs)	INNER BOX QUANTITY(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
BAS316	F2	Approximate 0.004	3000	30000	120000	7" reel

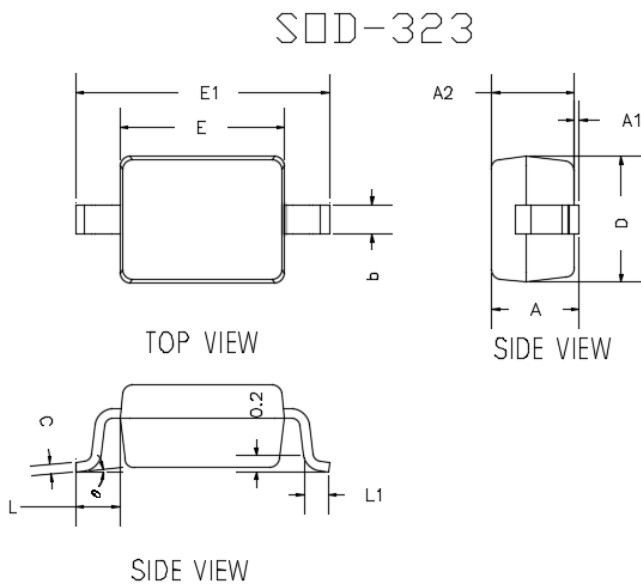
## Characteristics (Typical)





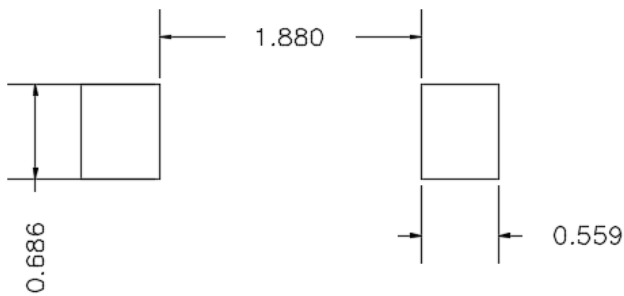
# BAS316

## ■Outline Dimensions



DIMENSIONS				
DIM	INCHES		MM	
	MIN	MAX	MIN	MAX
A	---	0.0393	---	1.0000
A1	0.0000	0.0039	0.0000	0.1000
A2	0.0314	0.0354	0.8000	0.9000
b	0.0098	0.0157	0.2500	0.4000
c	0.0031	0.0059	0.0800	0.1500
D	0.0472	0.0551	1.2000	1.4000
E	0.0629	0.0709	1.6000	1.8000
E1	0.0984	0.1063	2.5000	2.7000
L	0.0187TYP		0.475TYP	
L1	0.0098	0.0157	0.250	0.400
e	0°	8°	0°	8°

## ■Soldering Footprint



UNIT : mm

SUGGESTED SOLDER PAD LAYOUT



## BAS316

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