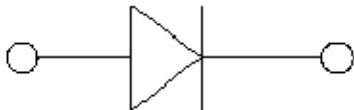


High Speed Switching Diode



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

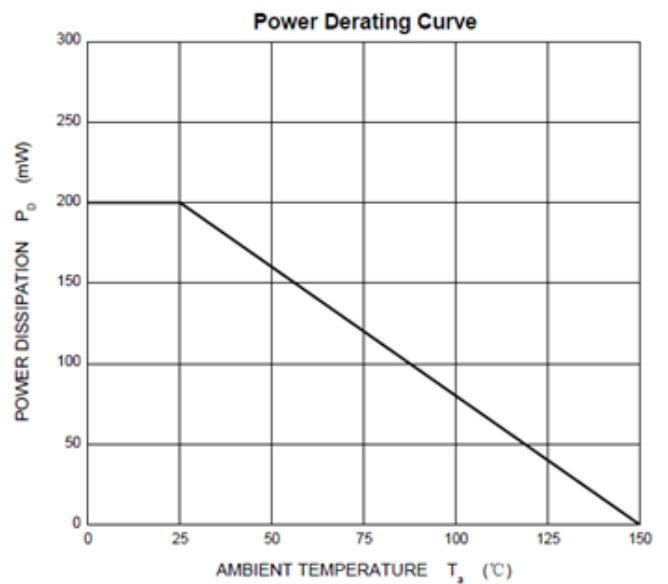
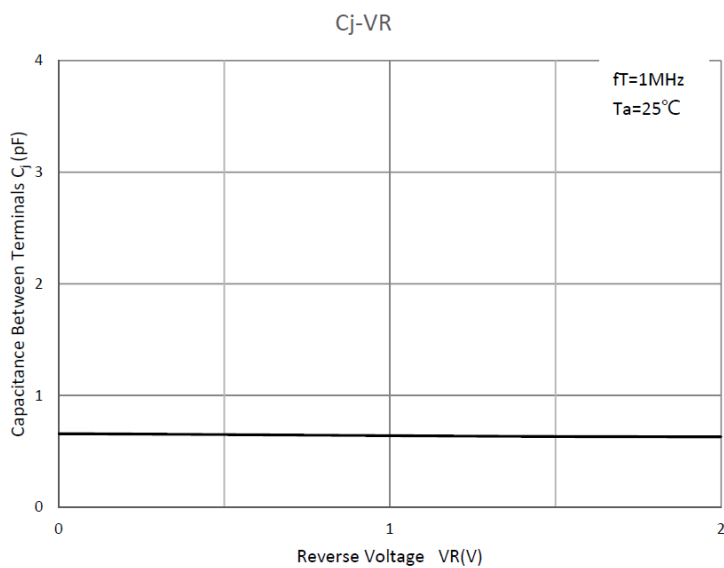
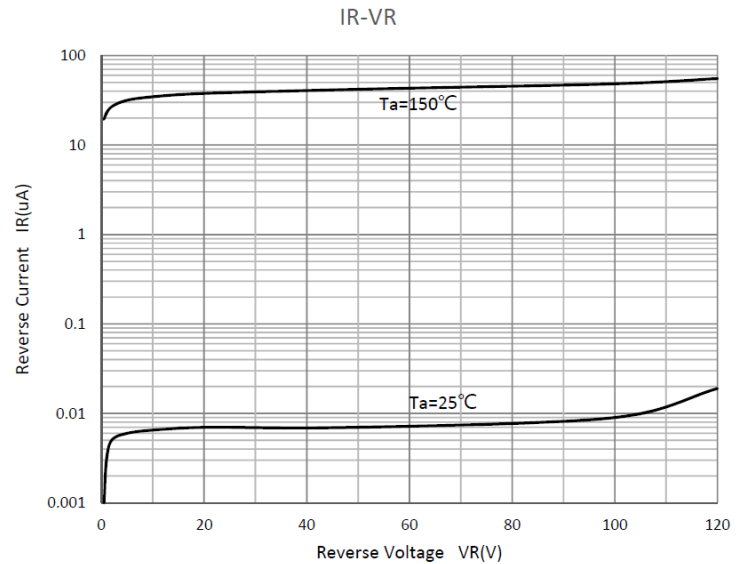
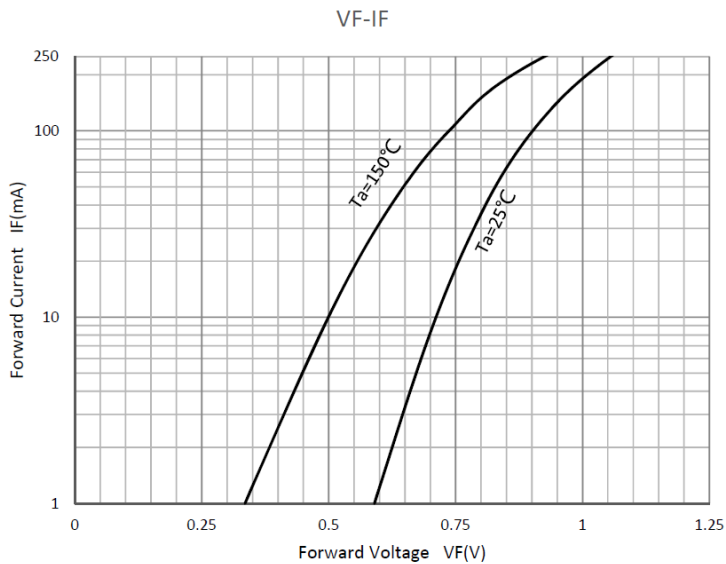
■Electrical Characteristics ($T_a=25^\circ\text{C}$ Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	Conditions	Min	Max
Maximum Forward voltage	V_F	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_R	nA	$V_R=20\text{V}$		25
	I_R	μA	$V_R=75\text{V}$		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

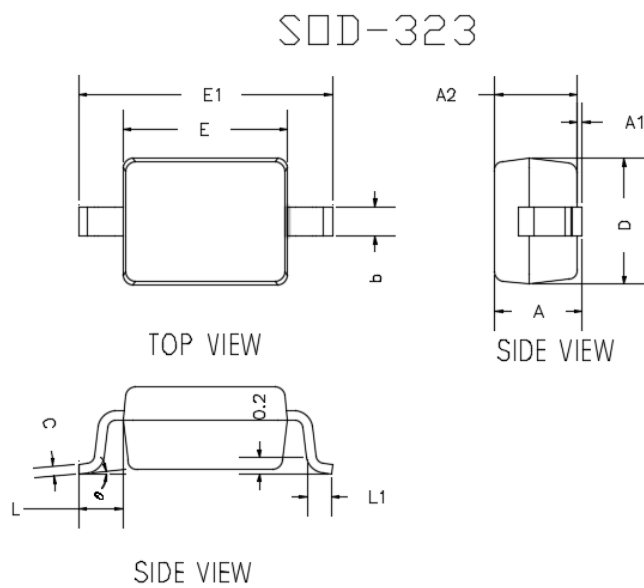
■ Ordering Information (Example)

PREFERRED P/N	PACKING CODE	UNIT WEIGHT(g)	MINIMUM PACKAGE(pcs)	INNER BOX QUANTITY(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
BAS316	F2	Approximate 0.0048	3000	30000	120000	7" reel

■ Characteristics (Typical)

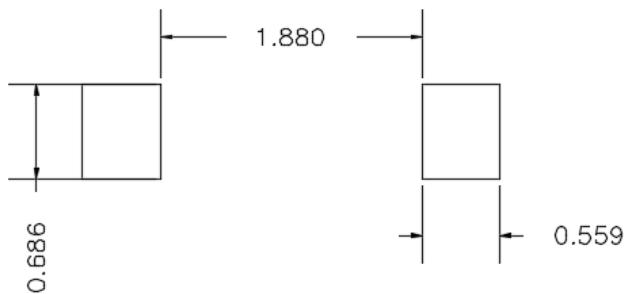


■Outline Dimensions



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
θ	0°	8°	0°	8°

■Soldering Footprint



UNIT: mm

SUGGESTED SOLDER PAD LAYOUT

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