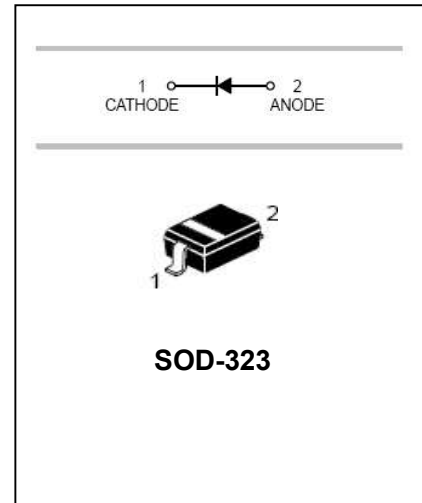


Silicon Epitaxial Planar Diode

BAS316

FEATURES

- Very small plastic SMD package
- High switching speed:max.4ns
- Continuous reverse voltage:max.100v
- Repetitive peak reverse voltage:max.100v
- Repetitive peak forward current:max.500mA



APPLICATIONS

- Surface mount fast switching diode

ORDERING INFORMATION

Type No.	Marking	Package Code
BAS316	A6	SOD-323

MAXIMUM RATING @ Ta=25°C unless otherwise specified

Characteristic	Symbol	Value	Unit
Repetitive peak reverse voltage	V_{RRM}	100	V
Continuous Reverse Voltage	V_R	100	V
Continuous forward Current	I_F	250	mA
Repetitive peak forward current	I_{FRM}	500	mA
Non-Repetitive peak forward current	I_{FSM}	$t=1\mu s$	4
		$t=1ms$	1
		$t=1s$	0.5
Power Dissipation, $T_s \leq 90^\circ C$	P_d	400	mW
Junction and Storage Temperature Range	T_j, T_{STG}	-65 to +150	$^\circ C$
Thermal resistance from junction to solder point	R_{thj-s}	150	$^\circ C/W$
Thermal resistance from junction to ambient	R_{thj-A}	500	$^\circ C/W$
Thermal resistance from junction to case	R_{thj-c}	210	$^\circ C/W$

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ELECTRICAL CHARACTERISTICS @ Ta=25°C unless otherwise specified

Characteristic	Symbol	Min	Max	Unit	Test Condition
Reverse Breakdown Voltage	$V_{(BR)R}$	100	-	V	$I_R=100\mu A$
Forward Voltage	V_F		0.715 0.855 1.0 1.25	V	$I_F=1.0mA$ $I_F=10mA$ $I_F=50mA$ $I_F=150mA$
Reverse Current	I_R	-	1.0 0.03	μA	$V_R=75V$ $V_R=25V$
Capacitance between terminals	C_T	-	1.5	pF	$V_R=0, f=1.0MHz$
Reverse Recovery Time	t_{rr}	-	4.0	ns	$I_F=I_R=10mA, R_L=100\Omega$

TYPICAL CHARACTERISTICS @ Ta=25°C unless otherwise specified

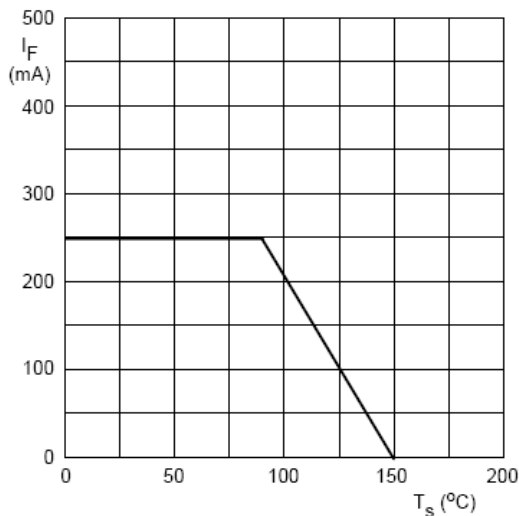


Fig.1 Maximum permissible continuous forward current as a function of soldering point temperature.

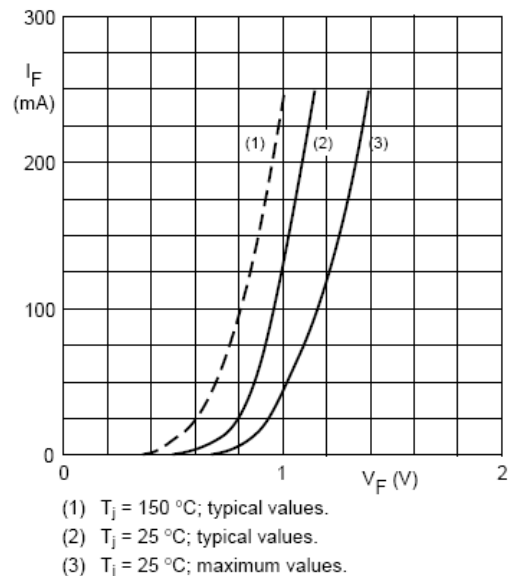


Fig.2 Forward current as a function of forward voltage.

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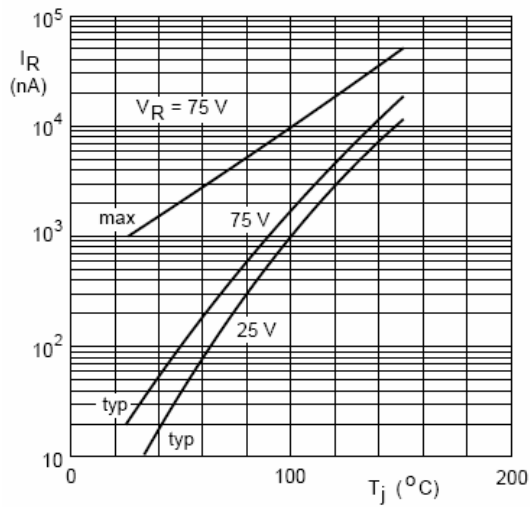
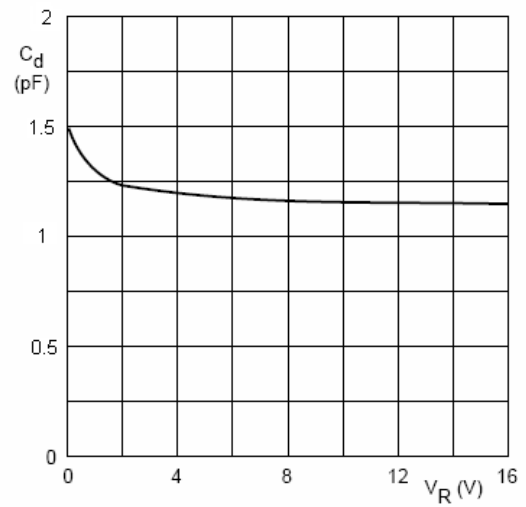


Fig.3 Reverse current as a function of junction temperature.



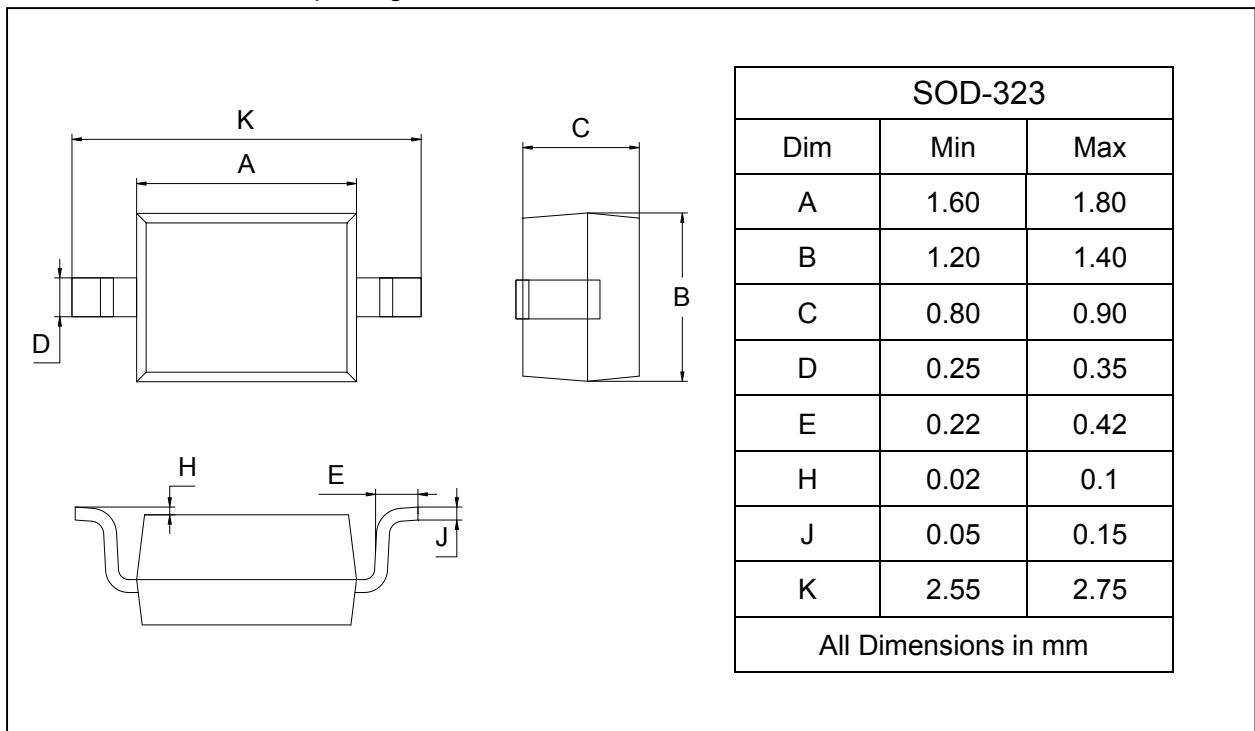
$f = 1 \text{ MHz}; T_j = 25 \text{ }^\circ\text{C}.$

Fig.4 Diode capacitance as a function of reverse voltage; typical values.

PACKAGE OUTLINE

Plastic surface mounted package

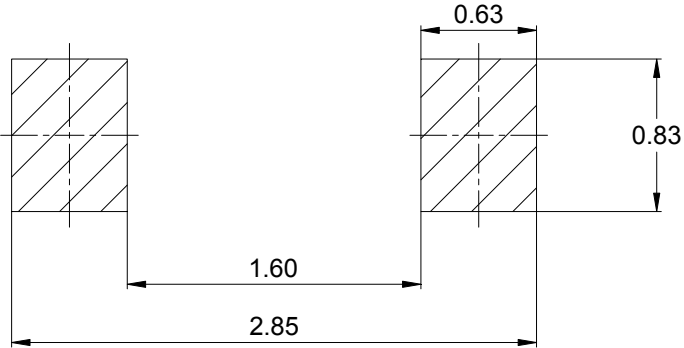
SOD-323



Silicon Epitaxial Planar Diode

BAS316

SOLDERING FOOTPRINT



Unit : mm

PACKAGE INFORMATION

Device	Package	Shipping
BAS316	SOD-323	3000/Tape&Reel