

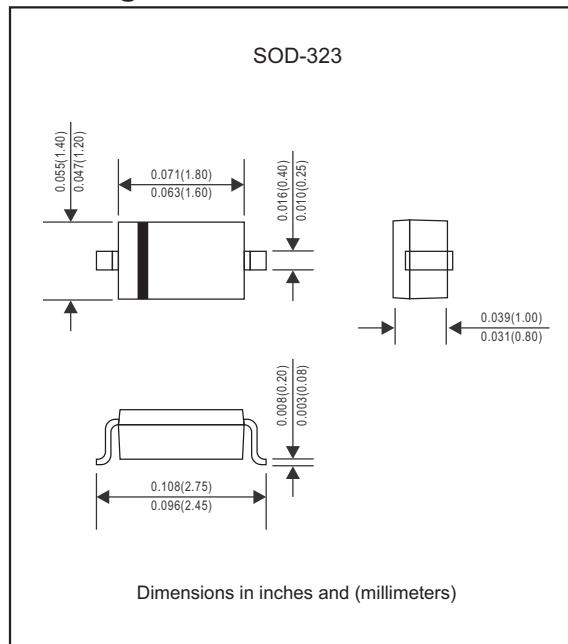
Features

- Low Reverse Current.
- Surface Mount Package Ideally Suited for Automatic Insertion.
- Fast Switching Speed.
- For General Purpose Switching Applications.
- Silicon epitaxial planar chip.
- Lead-free parts meet RoHS requirements.
- Compliant to Halogen-free
- Suffix"-Q1" for AEC-Q101

Mechanical data

- Epoxy:UL94-V0 rated flame retardant
- Case : Molded plastic, SOD-323
- Terminals : Solder plated, solderable per MIL-STD-750, Method 2026
- Polarity : Indicated by cathode band
- Mounting Position : Any

Package outline

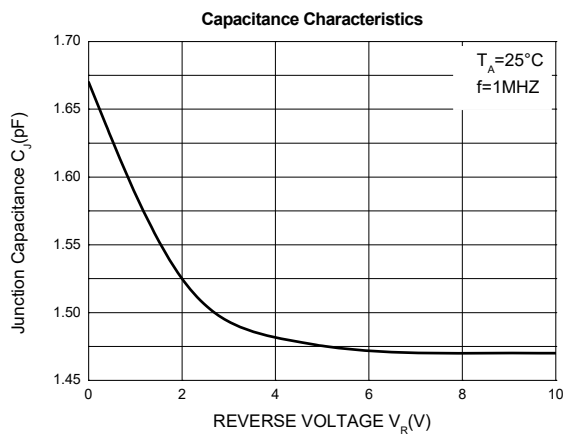
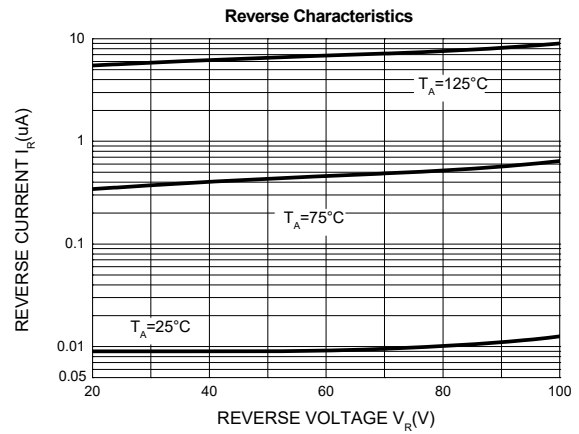
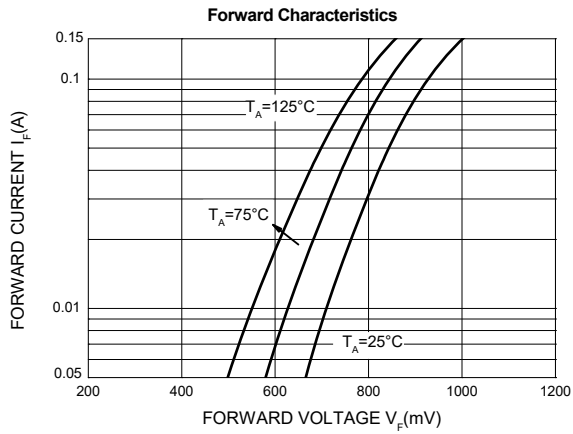


Maximum ratings and Electrical Characteristics (AT $T_A=25^{\circ}\text{C}$ unless otherwise noted)

PARAMETER	SYMBOL	UNIT	CONDITIONS	VALUE
Repetitive Peak Reverse Voltage	V_{RRM}	V		100
Average Forward Current	I_{FAV}	mA		250
Peak Forward Surge Current	I_{FSM}	A	$t_p=1\mu s$	2
Power Dissipation	P_D	mW		200
Thermal Resistance Junction To Ambient air	R_{thJA}	K/W		625
Junction Temperature	T_j	$^{\circ}\text{C}$		-55 to +150
Storage Temperature Range	T_{stg}	$^{\circ}\text{C}$		-55 to +150

PARAMETER	SYMBOL	UNIT	CONDITIONS	MIN	MAX
Forward Voltage	V_F	V	$I_F=1\text{mA}$		0.715
			$I_F=10\text{mA}$		0.855
			$I_F=50\text{mA}$		1.0
			$I_F=150\text{mA}$		1.25
Reverse Current	I_R	nA	$V_R=20\text{V}$		25
	I_R	μA	$V_R=75\text{V}$		1.0
Reverse Breakdown Voltage	V_{BR}	V	$I_R=100\mu\text{A}$	100	
Junction Capacitance	C_j	pF	$V_R=V_F=0\text{V}$, $f=1\text{MHz}$		4
Reverse Recovery Time	t_{rr}	ns	$I_F=I_R=50\text{mA}$, $I_R=0.1I_R$, $R_L=100\Omega$		4

Rating and characteristic curves



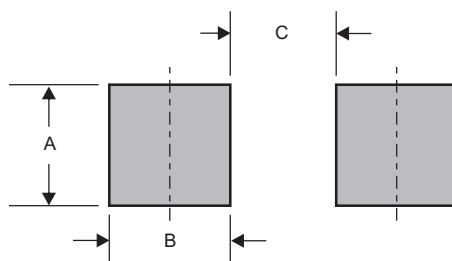
Pinning information

Pin	Simplified outline	Symbol
Pin1 cathode Pin2 anode		

Marking

Type number	Marking code
BAS316-Q1	A6

Suggested solder pad layout



Dimensions in inches and (millimeters)

PACKAGE	A	B	C
SOD-323	0.032 (0.82)	0.022 (0.56)	0.069 (1.75)