

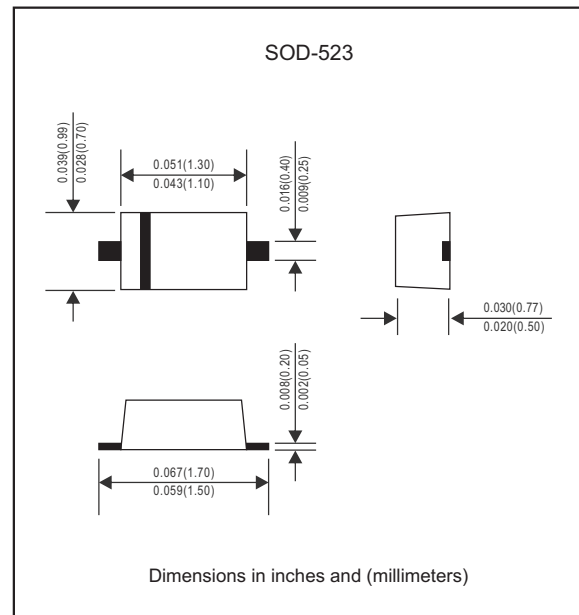
### Features

- Low Forward Voltage Drop
- Fast Switching Time
- Surface Mount Package Ideally
- Compliant to Halogen-free
- Suffix "-Q1" for AEC-Q101

### Mechanical data

- Epoxy:UL94-V0 rated flame retardant
- Case : Molded plastic, SOD-523
- Polarity : Indicated by cathode band
- Mounting Position : Any

### Package outline



### Maximum ratings (T<sub>A</sub>=25°C unless otherwise noted)

Parameter	Symbol	Value	Unit
DC Reverse Voltage	V <sub>R</sub>	70	V
Continuous Forward Current	I <sub>F</sub>	70	mA
Peak Forward Surge Current, 8.3ms single half sine-wave superimposed on rated load (JEDEC method)	I <sub>FSM</sub>	0.1	A
Power Dissipation	P <sub>D</sub>	150	mW
Operation Junction Temperature	T <sub>J</sub>	125	°C
Storage Temperature	T <sub>stg</sub>	-55~ +150	°C

### Electrical Characteristics (T<sub>A</sub>=25°C unless otherwise noted)

Parameter	Symbol	Test conditions	Min	Typ	Max	Units
Reverse Breakdown Voltage	V <sub>BR</sub>	I <sub>R</sub> = 10μA	70			V
Forward Voltage	V <sub>F</sub>	I <sub>F</sub> = 1mA			0.41	V
		I <sub>F</sub> = 15mA			1	
Peak Reverse Current	I <sub>R</sub>	V <sub>R</sub> = 50V			0.1	uA
Total Capacitance	C <sub>j</sub>	V <sub>R</sub> = 1V , f = 1MHz			2	pF
Reverse Recovery Time	t <sub>rr</sub>	I <sub>F</sub> = I <sub>R</sub> = 10mA , I <sub>rr</sub> = 0.1×I <sub>R</sub> , R <sub>L</sub> = 100Ω			5	ns

## Ratings and Characteristic Curves

Fig.1 Power Derating Curve

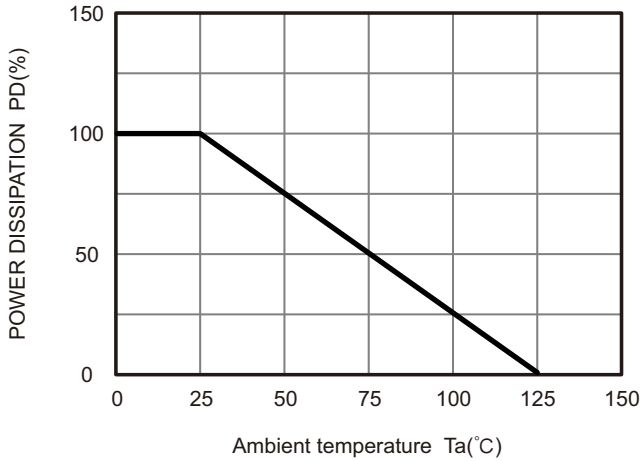


Fig.2 Typical Reverse Characteristics

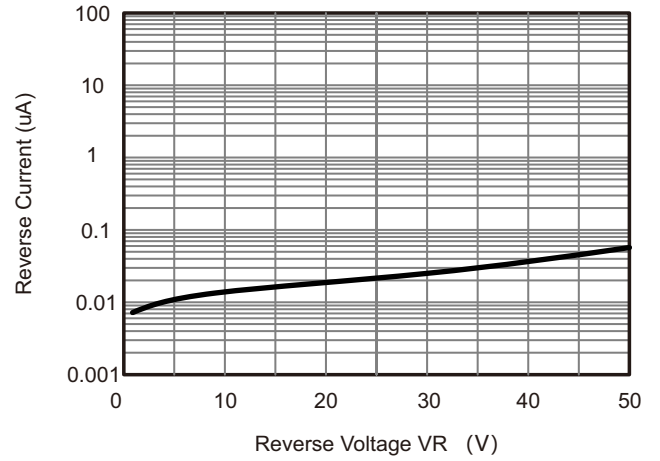


Fig.3 Forward Characteristics

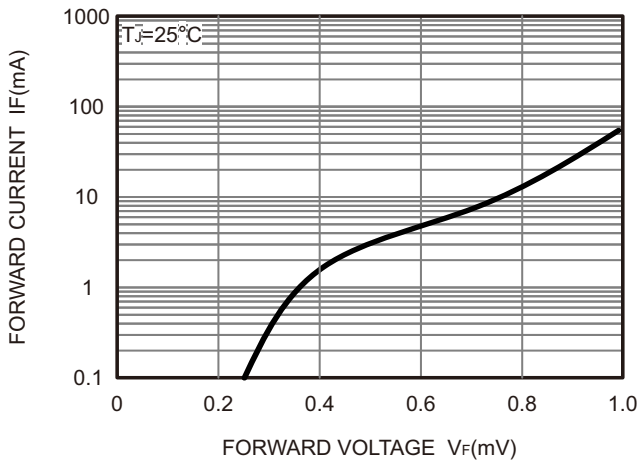
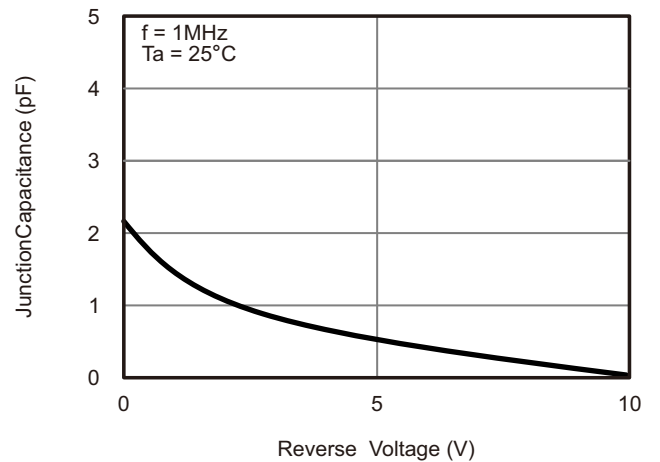




Fig.4 Typical Junction Capacitance



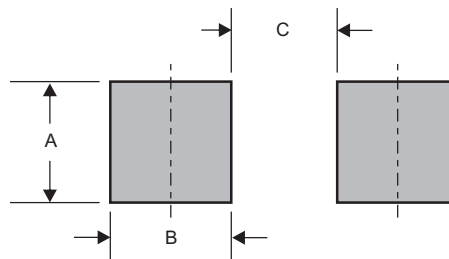
### Pinning information

Pin	Simplified outline	Symbol
Pin1 cathode Pin2 anode		

### Marking

Type number	Marking code
BAS70X-Q1	K73/73

### Suggested solder pad layout



Dimensions in inches and (millimeters)

PACKAGE	A	B	C
SOD-523	0.032 (0.80)	0.024 (0.60)	0.044 (1.10)