

**SOT-323 SURFACE MOUNT SCHOTTKY  
BARRIER DIODE**

**FEATURES**

- \* Low forward voltage drop
- \* Fast switching
- \* Ultra - small surface mount package
- \* PN Junction guard ring for transient and ESD protection
- Marking: KL8

**MECHANICAL DATA**

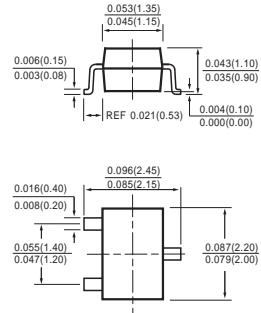
- \* Case: Molded plastic
- \* Epoxy: UL 94V-O rate flame retardant
- \* Lead: MIL-STD-202E method 208C guaranteed
- \* Mounting position: Any
- \* Weight: 0.006 gram

**MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS**

Ratings at 25 °C ambient temperature unless otherwise specified.



**SOT-323**



Dimensions in inches and (millimeters)

**MAXIMUM RATINGS** ( @ TA = 25°C unless otherwise noted )

CHARACTERISTICS	SYMBOL	VALUE	UNITS
Peak repetitive reverse voltage	VRRM	30	V
working peak reverse voltage	VRWM	30	
DC blocking voltage	VR	30	
Forward continuous current (Note 1)	IF	200	μA
Repetitive peak forward current (Note 1)	IFRM	300	μA
Forward surge current (Note 1) @ t < 1.0 s	IFSM	600	μA
Power dissipation (Note 1)	PD	200	μW
Thermal resistance, Junction to ambient air (Note 1)	R JA	625	K/Ω
Operating and storage temperature range	Tj, Tstg	-65--+125	°C

**ELECTRICAL CHARACTERISTICS** ( @ TA = 25°C unless otherwise noted )

CHARACTERISTICS	SYMBOL	MIN	TYP	MAX	UNITS
Reverser breakdown voltage (IRS= 100μA)	V(BR)R	30	-	-	V
Forward voltage (Note 2)	VF	(IF= 0.1mA)	-	240	mV
		(IF= 1mA)	-	320	
		(IF= 10mA)	-	400	
		(IF= 30mA)	-	500	
		(IF= 100mA)	-	1000	
Reverse leakage current (VR= 25V) (Note 2)	IR	-	-	2.0	μA
Junction capacitance (VR= 1.0V, f= 1.0MHz)	Cj	-	-	10	pF
Reverser recovery time (IF=10mA through IR=10mA to IR=1.0mA,RL=100 )	trr	-	-	5.0	ns

**Notes:** 1. Valid provided that terminals are kept at ambient temperature.  
2. tp < 300μs, duty cycle < 2%.

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