

**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

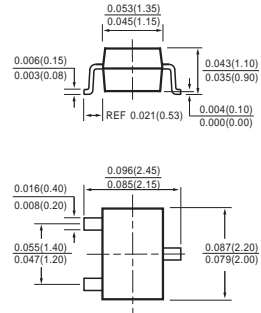
- * Case: Molded plastic
- * Epoxy: UL 94V-O rate flame retardant
- * Lead: MIL-STD-202E method 208C guaranteed
- * Mounting position: Any
- * Weight: 0.006 gram

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	V _{RRM}	30	V
working peak reverse voltage	V _{RWM}	30	
DC blocking voltage	V _R	30	
Forward continuous current (Note 1)	I _F	200	μA
Repetitive peak forward current (Note 1)	I _{FRM}	300	μA
Forward surge current (Note 1) @ t < 1.0 s	I _{FSM}	600	μA
Power dissipation (Note 1)	P _D	200	μW
Thermal resistance, Junction to ambient air (Note 1)	R _{JA}	625	K/Ω
Operating and storage temperature range	T _j , T _{stg}	-65--+125	°C

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

CHARACTERISTICS	SYMBOL	MIN	TYP	MAX	UNITS	
Reverser breakdown voltage (I _{RS} = 100μA)	V(BR) _R	30	-	-	V	
Forward voltage (Note 2)	V _F	(I _F = 0.1mA)	-	-	240	mV
		(I _F = 1mA)	-	-	320	
		(I _F = 10mA)	-	-	400	
		(I _F = 30mA)	-	-	500	
		(I _F = 100mA)	-	-	1000	
Reverse leakage current (V _R = 25V) (Note 2)	I _R	-	-	2.0	μA	
Junction capacitance (V _R = 1.0V, f= 1.0MHz)	C _j	-	-	10	pF	
Reverser recovery time (I _F =10mA through I _R =10mA to I _R =1.0mA, R _L =100 Ω)	t _{rr}	-	-	5.0	ns	

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

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