

SCHOTTKY BARRIER DIODE

FEATURES

- * Very low turn-on voltage
- * Fast switching
- * For protecting the P/N junction guard ring against excessive voltage, such as electrostatic dis-charges
- * Surface mounting device

MECHANICAL DATA

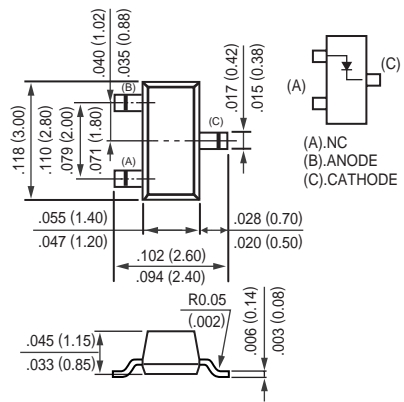
- * Epoxy : Device has UL flammability classification 94V-0
- * Weight : approx. 0.008g

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25 °C ambient temperature unless otherwise specified.
 Single phase, half wave, 60 Hz, resistive or inductive load.
 For capacitive load, derate current by 20%.



SOT-23



Dimensions in inches and (millimeters)

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

RATINGS	SYMBOL	BAT54	UNITS
Repetitive Peak Reverse Voltage	V _{RRM}	30	Volts
Forward Continuous Current	I _F	200	mA
Repetitive Peak Forward Current	I _{FRM}	300	mA
Surge Forward Current	I _{FSM}	600	mA
Total Power Dissipation	P _D	230	m W
Junction Temperature	T _J	125	°C
Storage Temperature Range	T _{STG}	-65 to + 150	°C

ELECTRICAL CHARACTERISTICS (At $T_A = 25^\circ\text{C}$ unless otherwise noted)

CHARACTERISTICS	SYMBOL	Value	Unit	Testing Condition
Reverse Breakdown Voltage	$V(\text{BR})_R$	30	V	$I_r=10\mu\text{A}$
Forward Voltage	$V_F(1)$	240	mV	$I_f=0.1\text{mA}$
	$V_F(2)$	320	mV	$I_f=1\text{mA}$
	$V_F(3)$	400	mV	$I_f=10\text{mA}$
	$V_F(4)$	500	mV	$I_f=30\text{mA}$
	$V_F(5)$	1000	mV	$I_f=100\text{mA}$
Reverse Current	I_R	2.0	μA	$V_r=25\text{V}$
Total Capacitance	C_T	10	pF	$V_r=1\text{V}, f=1\text{MHz}$
Reverse Recovery Time	T_{rr}	5	nS	$I_f=I_r=10\text{mA}, R_L=100\text{ohm}$, measured at $i_r=1\text{mA}$

CHARACTERISTIC CURVES

FIG. 1 - FORWARD CURRENT & FORWARD VOLTAGE

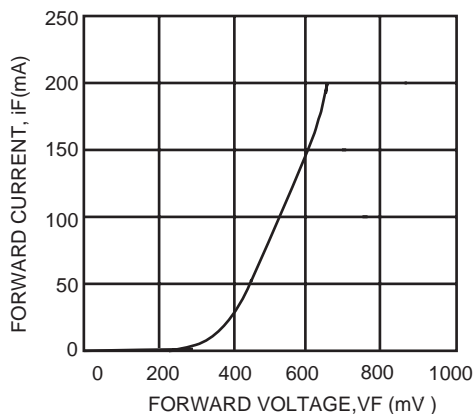


FIG. 2 - DIODE CAPACITANCE

