

Surface Mount Schottky Barrier Diodes

Pb Lead(Pb)-Free

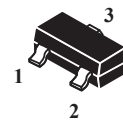
Features:

- *Extremely Fast Switching Speed
- *Low Forward Voltage
- *Very Small Conduction Losses
- *Schottky Barrier Diodes Encapsulated in a SOT-23 Package

Description:

These schottky barrier diodes are designed for high speed switching applications circuit protection, and voltage clamping, Extremely low forward voltage reduces conduction loss, Miniature surface mount package is excellent for hand held and portable applications where space is limited.

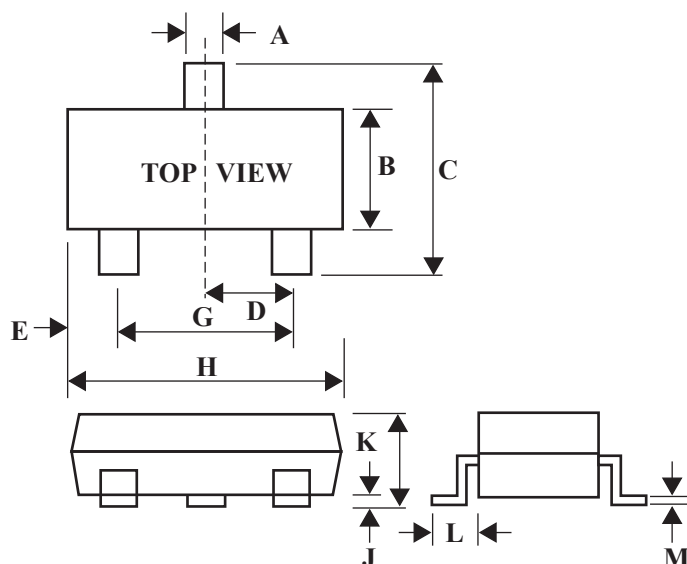
**SMALL SIGNAL
SCHOTTKY DIODES
200m AMPERES
30 VOLTS**



SOT-23

SOT-23 Outline Dimensions

Unit:mm



Dim	Min	Max
A	0.35	0.51
B	1.19	1.40
C	2.10	3.00
D	0.85	1.05
E	0.46	1.00
G	1.70	2.10
H	2.70	3.10
J	0.01	0.13
K	0.89	1.10
L	0.30	0.61
M	0.076	0.25

BAT54/BAT54C BAT54A/BAT54S



MAXIMUM RATINGS (T_J = 125°C unless otherwise noted)

Rating	Symbol	Value	Unit
Reverse Voltage	V _R	30	Volts
Forward Power Dissipation ⁽¹⁾ @ T _A = 25 °C Derate above 25 °C	P _D	200 2.0	mW mW/°C
Forward Current (DC)	I _F	200 Max	mA
Thermal Resistance Junction to Ambient	R _{θJA}	500	°C/W
Thermal Resistance Junction to Case	R _{θJC}	556	°C/W
Junction Temperature	T _J	125 Max	°C
Storage Temperature Range	T _{stg}	-55 to +150	°C

ELECTRICAL CHARACTERISTICS (T_A = 25°C unless otherwise noted) (EACH DIODE)

Characteristic	Symbol	Min	Typ	Max	Unit
Reverse Breakdown Voltage (I _R = 10 μA)	V _{(BR)R}	30	—	—	Volts
Total Capacitance (V _R = 1.0 V, f = 1.0 MHz)	C _T	—	7.6	10	pF
Reverse Leakage (V _R = 25 V)	I _R	—	0.5	2.0	μAdc
Forward Voltage (I _F = 0.1 mAdc)	V _F	—	0.22	0.24	Vdc
Forward Voltage (I _F = 30 mAdc)	V _F	—	0.41	0.5	Vdc
Forward Voltage (I _F = 100 mAdc)	V _F	—	0.52	1.0	Vdc
Reverse Recovery Time (I _F = I _R = 10 mAdc, I _{R(REC)} = 1.0 mAdc) Figure 1	t _{rr}	—	—	5.0	ns
Forward Voltage (I _F = 1.0 mAdc)	V _F	—	0.29	0.32	Vdc
Forward Voltage (I _F = 10 mAdc)	V _F	—	0.35	0.40	Vdc
Forward Current (DC)	I _F	—	—	200	mAdc
Repetitive Peak Forward Current	I _{FRM}	—	—	300	mAdc
Non-Repetitive Peak Forward Current (t < 1.0 s)	I _{FSM}	—	—	600	mAdc

Note : 1.FR-5 = 1.0 x 0.75 x 0.062 in

DeviceMarking

Item	Marking	Equivalent Cir cuitdiagram
BAT54	JV3	
BAT54C	KL3	
BAT54A	B6	
BAT54S	LD3	

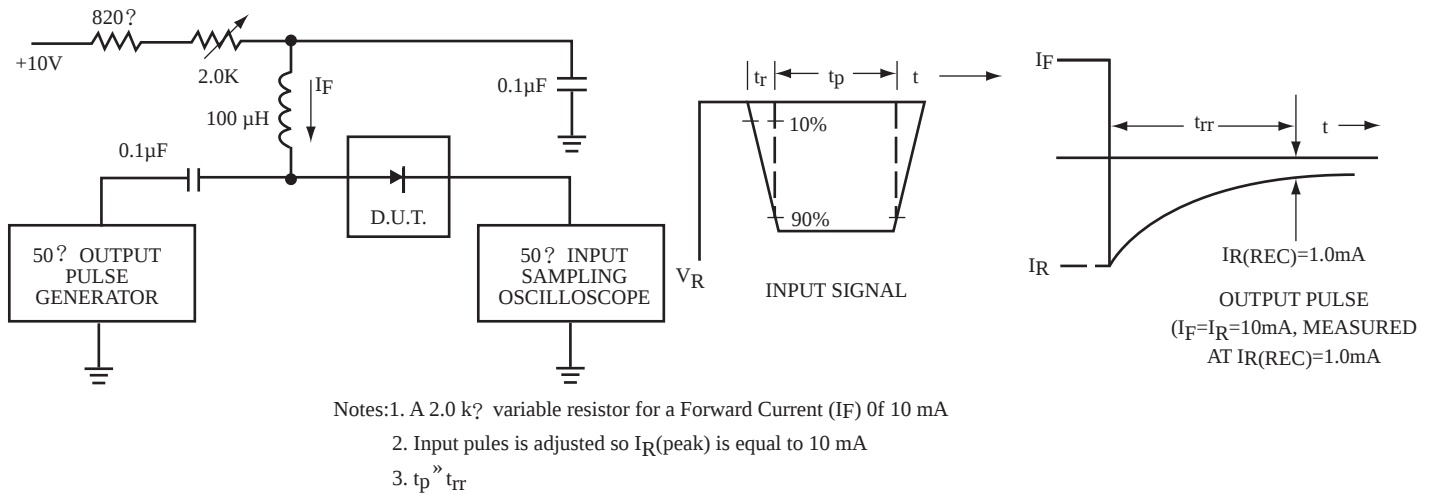


FIG.1 Recovery Time Equivalent Test Circuit

