

Surface Mount Schottky Barrier Diodes

 Lead(Pb)-Free

Features:

- *Extremely Fast Switching Speed
- *Low Forward Voltage
- *Very Small Conduction Losses
- *Schottky Barrier Diodes Encapsulated in a SOD -323 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.

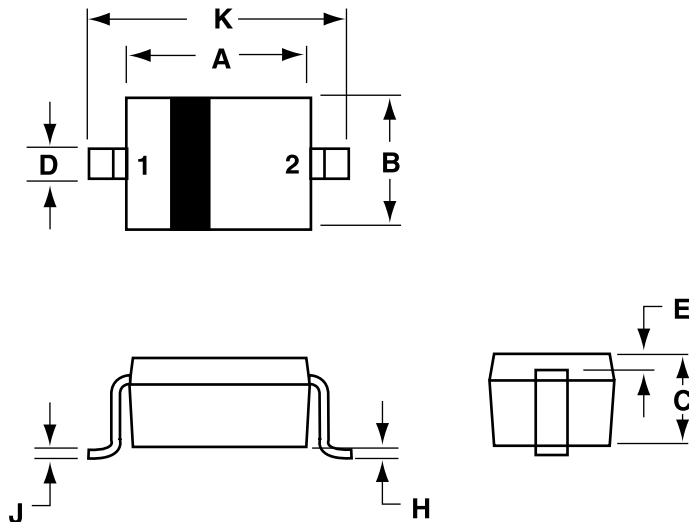
SMALL SIGNAL
SCHOTTKY DIODES
200m AMPERES
30 VOLTS



SOD-323

SOD -323 Outline Dimensions

Unit:mm



Dim	MILLMETERS	
	Min	Max
A	1.60	1.80
B	1.15	1.35
C	0.80	1.00
D	0.25	0.40
E	0.15REF	
H	0.00	0.10
J	0.089	0.177
K	2.30	2.70

PIN 1.CATHODE
2.ANODE


Maximum Ratings (T_J=125°C Unless Otherwise noted)

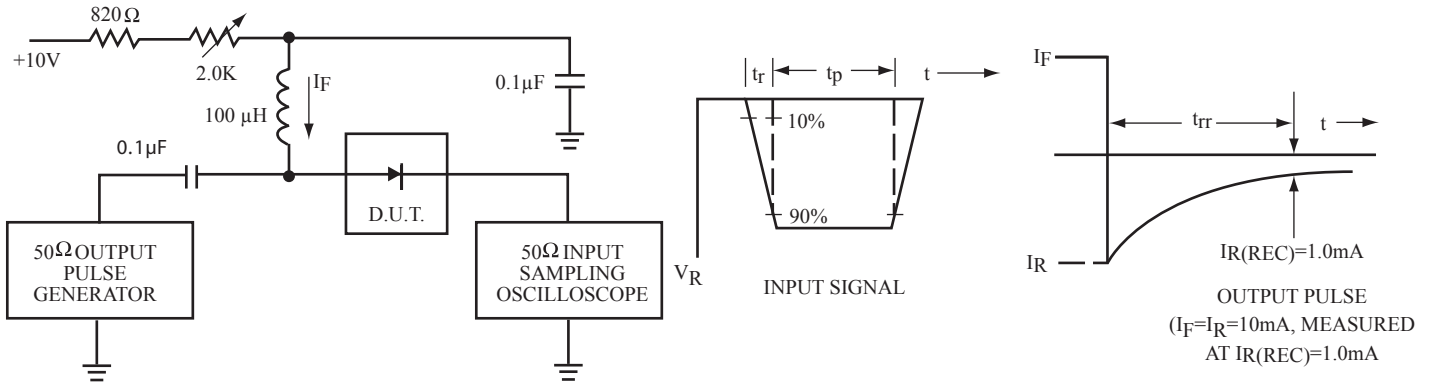
Characteristic	Symbol	Values	Unit
Reverse Voltage	V _R	30	V
Average Rectifier Forward Current	I _O	200	mA
Peak Repetitive Forward Current Rated V _R , Square Wave, 20KHz	I _{FSM}	400	mA
Thermal Resistance, Junction to Ambient	R _{θJA}	635	°C/W
Power Dissipation	P _D	200	mW
Operating Junction Temperature Range	T _J	-55 to +125	°C
Storage Temperature Range	T _{stg}	-55 to +150	°C

Electrical Characteristics (T_A=25°C Unless otherwise noted)

Characteristic	Symbol	Min	Typ	Max	Unit
Reverse Breakdown Voltage (I _R =10μA)	V _{(BR)R}	30			Volts
Forward Voltage I _F =0.1mA I _F =1.0mA I _F =10mA I _F =30mA I _F =100mA	V _F		0.22 0.29 0.35 0.41 0.52	0.24 0.32 0.40 0.50 1.00	Volts
Total Capacitance (V _R =1.0V, f=1.0MHz)	C _T		7.6	10	PF
Reverse Leakage V _R =25V	I _R		0.5	2.0	μA _{dc}
Reverse Recover Time I _F =I _R =10mA, I _{R(Rec)} =1.0mA	T _{rr}			5.0	nS

Device Marking

Item	Marking	Equivalent Circuit diagram
BAT54H	JV	



Notes: 1. A 2.0 kΩ variable resistor for a Forward Current (I_F) of 10 mA
 2. Input pules is adjusted so $I_R(\text{peak})$ is equal to 10 mA
 3. $t_p \gg t_{rr}$

Figure 1. Recovery Time Equivalent Test Circuit

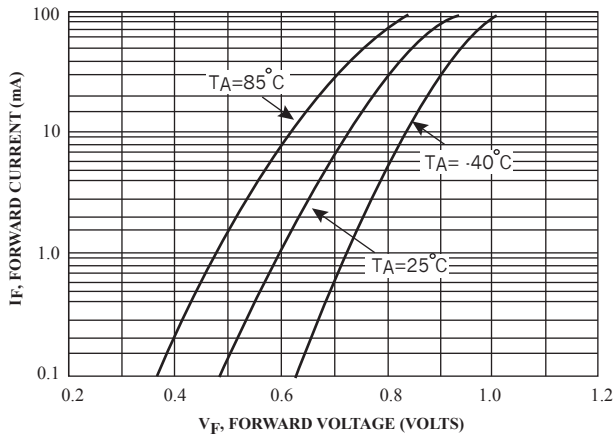


Figure 2. Forward Voltage

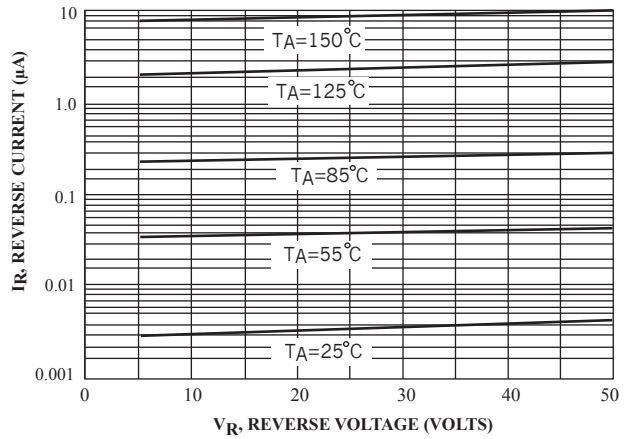


Figure 3. Leakage Current

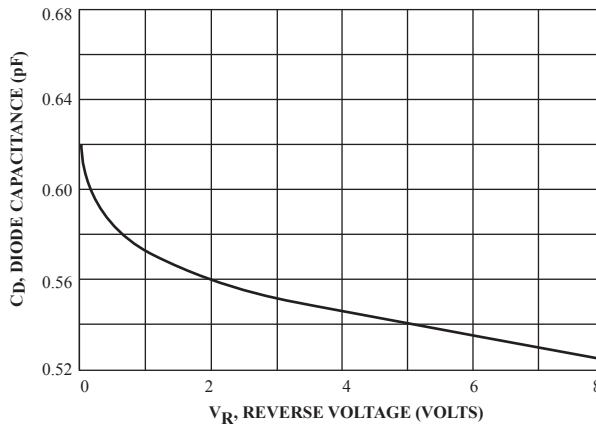


Figure 4. Capacitance