

SURFACE MOUNT SCHOTTKY BARRIER DIODE

REVERSE VOLTAGE - **30Volts**
 FORWARD CURRENT - **200m Ampere**

FEATURES

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

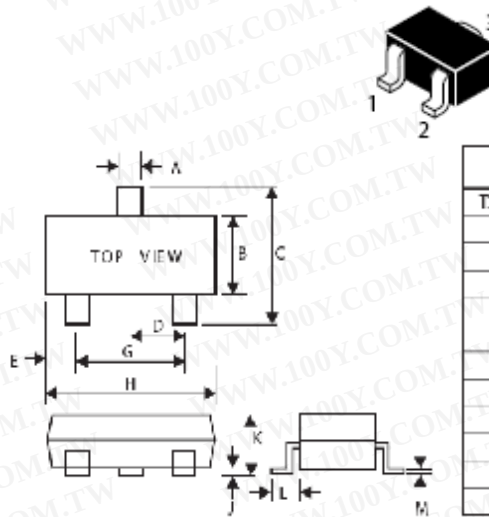
Package

勝特力材料 886-3-5753170
 勝特力电子(上海) 86-21-34970699
 勝特力电子(深圳) 86-755-83298787
[Http://www.100y.com.tw](http://www.100y.com.tw)

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.

SOT-323(SC-70)



SOT-323		
Dim	Min	Max
A	0.30	0.40
B	1.15	1.35
C	2.00	2.40
D	-	0.65
E	0.30	0.40
G	1.20	1.40
H	1.80	2.20
J	0.00	0.10
K	0.80	1.00
L	0.42	0.53
M	0.10	0.25

Unit:mm

Maximum Ratings(TJ=25 °C Unless otherwise noted)

Characteristic	Symbol	BAT54W/CW/AW/SW	Unit
Reverse Voltage	V _R	30	Volts
Average Rectifier Forward Current	I _{F(AV)}	200	mA
Peak Repetitive Forward Current	I _{FRM}	300	mA
Rated V _R , Square Wave,20KHz	I _{FSM}	600	mA
Non-Repetitive Forward Current(t ≤ 1.0s)	I _{FSM}	600	mA
Operating Junction Temperature Range	T _j	-55 to +125	°C
Storage Temperature Range	T _{STG}	-55 to +150	°C

Electrical Characteristics (TA=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	trr			5.0	nS

Device Marking

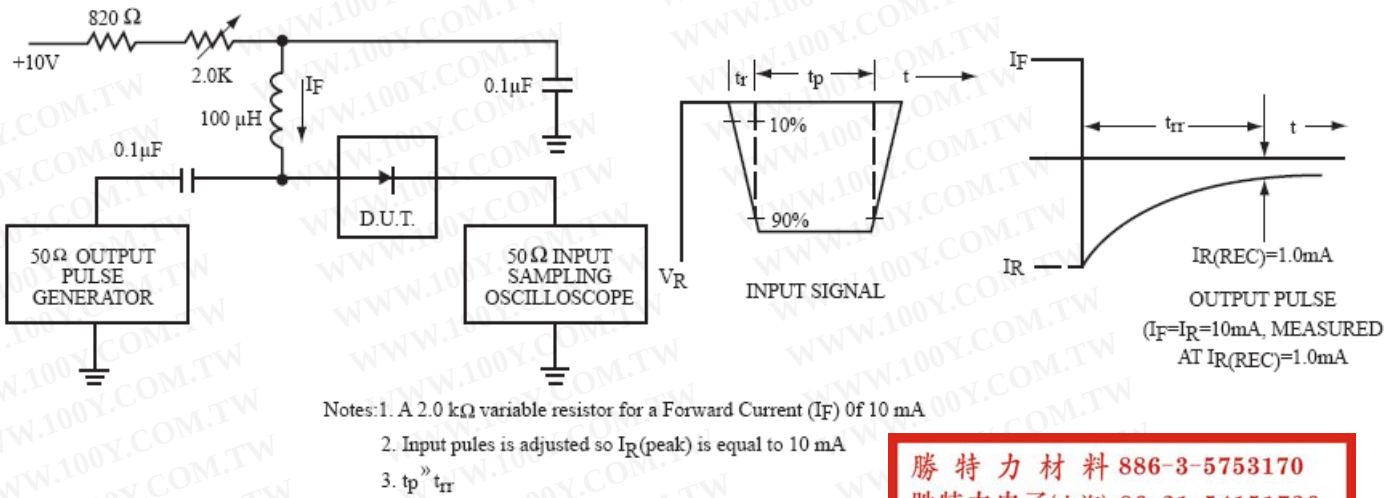
Item	Marking	Equivalent circuit diagram
BAT54W	B4	
BAT54CW	KL7	
BAT54AW	B6 KL6	
BAT54SW	B8	

RATING AND CHARACTERISTIC CURVES

BAT54W/BAT54CW
BAT54AW/BAT54SW



FIG 1. RECOVERY TIME EQUIVALENT TEST CIRCUIT



勝特力材料 886-3-5753170
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FIG 2.FORWARD VOLTAGE

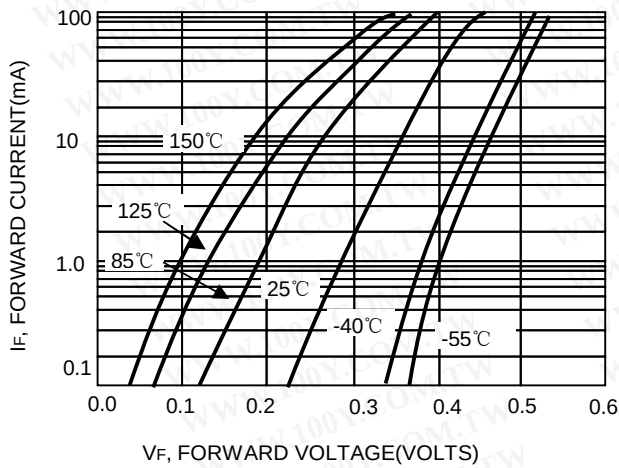


FIG 3.LEAKAGE CURRENT

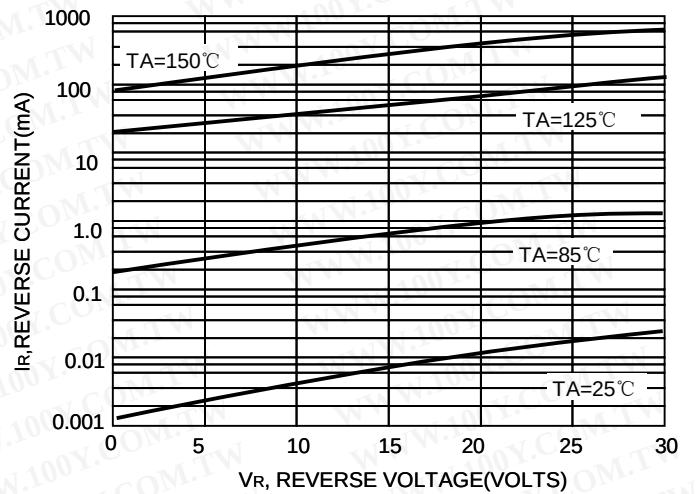


FIG. 4.TORAL CAPACITANCE

