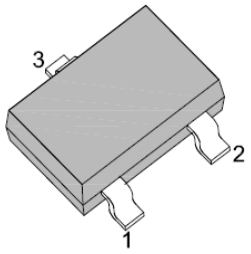
Multiple Terminals SMD Schottky Diodes



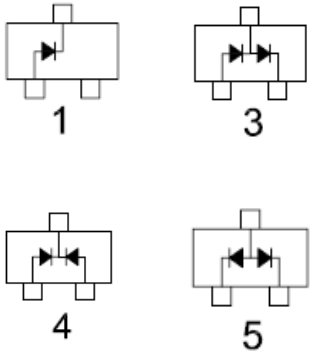
SOT-323

Features

- Low Turn-on Voltage
- Fast Switching
- High Conductance
- RoHS Compliant

Mechanical Data

Case:	SOT-323, Plastic Package
Terminals:	Solderable per MIL-STD-202, Method 208
Weight:	Approx. 0.0052 gram



Maximum Ratings & Electrical Characteristics *(T_J=125ºC unless noted otherwise)*

Symbol	Description	BAT54WS	BAT54AWS	BAT54CWS	BAT54SWS	Unit	Conditions
	Pinout Figure	1	5	4	3		
	Marking Code	KL5 / L4	KL6 / L42	KL7 / L43	KL8 / L44		
V_{RRM}	Repetitive Peak Reverse Voltage	30				V	
$I_{F(AV)}$	Maximum Average Forward Current	200				mA	
I_{FRM}	Peak Repetitive Forward Current,	300				mA	Rated V_R, Square Wave, 20KHz
I_{FSM}	Non-Repetitive Forward Current	600				mA	t<=1.0s
T_J	Junction Temperature	125				° C	
T_{STG}	Storage Temperature Range	-55 to +125				° C	

BAT54WS/AWS/CWS/SWS

Electrical Characteristics *(T Ambient=25ºC unless noted otherwise)*

Symbol	Description	Min.	Typ.	Max.	Unit	Conditions
$V_{(BR)R}$	Reverse Breakdown Voltage	30	-	-	V	I_R=10μA
V_F	Maximum Instantaneous Forward Voltage	-	0.22	0.24	V	I_F=0.1mA
		-	0.29	0.32		I_F=1mA
		-	0.35	0.40		I_F=10mA
		-	0.41	0.50		I_F=30mA
		-	0.52	1.00		I_F=100mA
I_R	Maximum DC Reverse Current at Rated DC Blocking Voltage	-	0.5	2.0	μA	V_R=25V
C_T	Total Capacitance	-	7.6	10	pF	V_R=1V, f=1MHz
T_{rr}	Reverse Recovery Time	-	-	5.0	nS	I_F=I_R=10mA, $I_{R(REC)}$=1mA,

Typical Characteristics Curves

Fig1- Typical Forward Characteristics

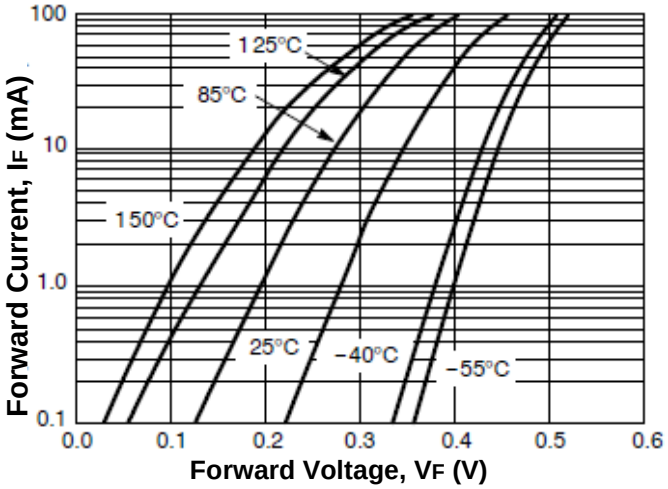


Fig.2- Typical Reverse Characteristics

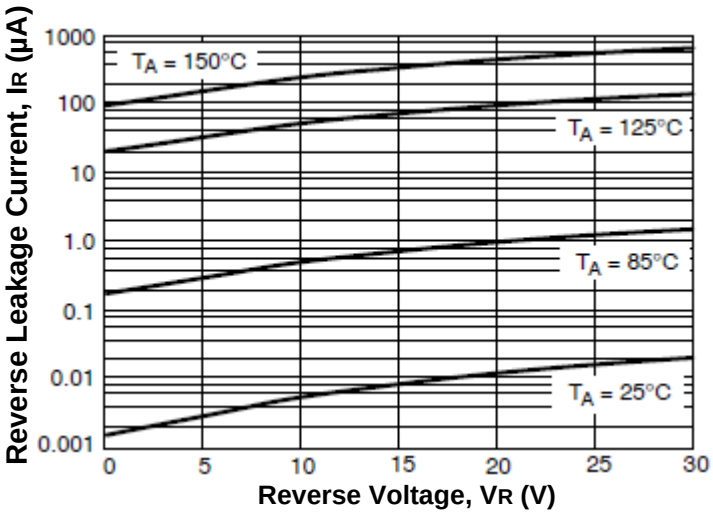


Fig.3- Typical Junction Capacitance

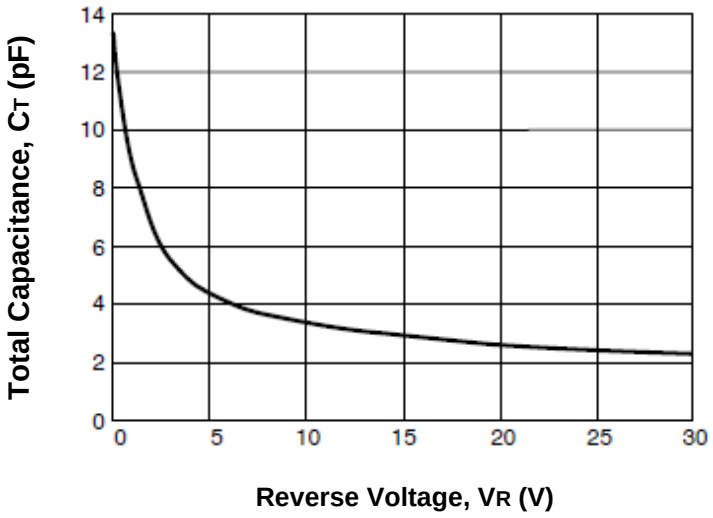
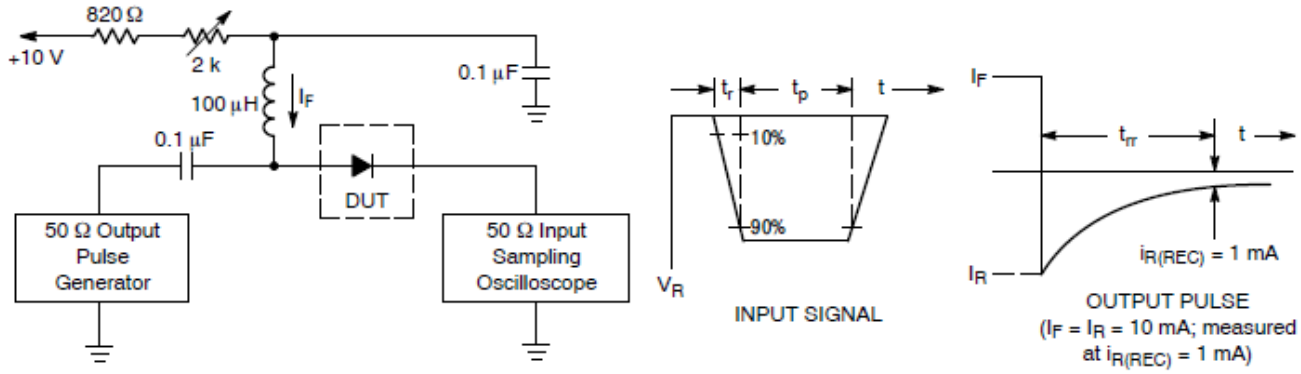


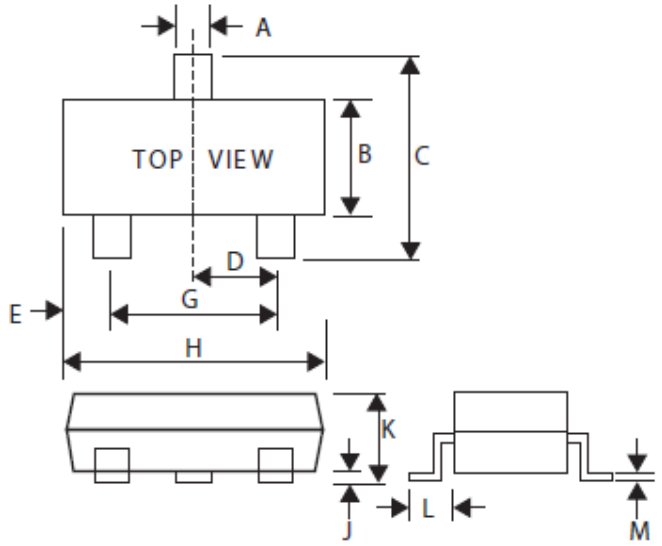
Fig.4- Recovery Time Equivalent Test Circuit



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

BAT54WS/AWS/CWS/SWS

Dimensions in mm



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

SOT-323

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