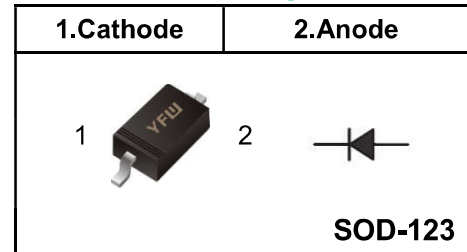


**Schottky Barrier Diodes**
**FEATURES**

- ◆ For surface mounted applications
- ◆ Low Forward Voltage Drop
- ◆ Fast Switching
- ◆ Small Surface Mount Package
- ◆ PN Junction Guard Ring for Transient and ESD Protection
- ◆ Available in Lead Free Version

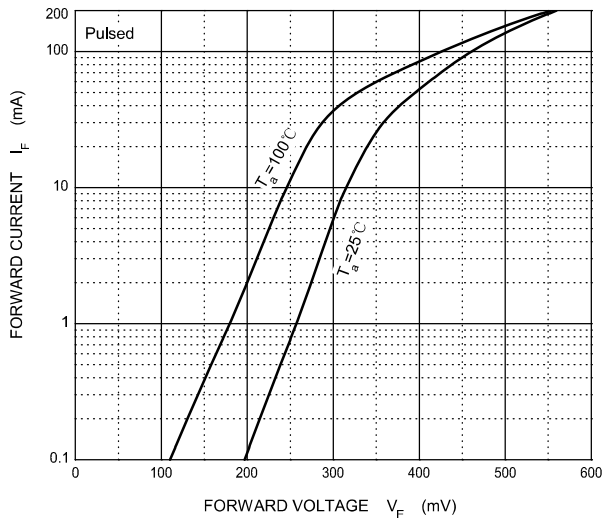
**Pinning**

**Marking Code**
**BAT54W**
**L9**
**Absolute Maximum Ratings Ta = 25 °C**

Parameter	Symbols	Limit	Units
DC blocking voltage	$V_R$	30	<b>V</b>
RMS reverse voltage	$V_{R(RMS)}$	21	
Average rectified output current	$V_{RMS}$	100	<b>mA</b>
Forward continuous current	$I_F$	200	<b>mA</b>
Repetitive peak forward current	$I_{FRM}$	300	<b>mA</b>
Non-repetitive Peak Forward Surge Current @t=8.3mS	$I_{FSM}$	600	<b>mA</b>
Power Dissipation	$P_d$	500	<b>mW</b>
Thermal resistance junction to ambient	$R_{\theta JA}$	200	<b>°C/W</b>
Junction temperature	$T_j$	125	<b>°C</b>
Storage temperature range	$T_{stg}$	-55~+150	<b>°C</b>

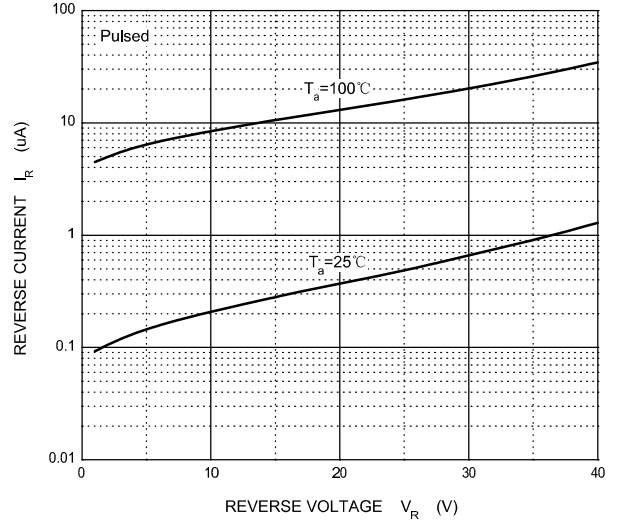
**Electrical Characteristics Ta = 25 °C**

Parameter	Symbols	Conditions	Min	Typ	Max	Units
Reverse breakdown voltage	$V_{(BR)}$	$I_R=100\mu A$	30	-	-	<b>V</b>
Forward voltage	$V_{F1}$	$I_F=0.1mA$	-	-	240	<b>mV</b>
	$V_{F2}$	$I_F=1.0mA$	-	-	320	
	$V_{F3}$	$I_F=10mA$	-	-	400	
	$V_{F4}$	$I_F=30mA$	-	-	500	
	$V_{F5}$	$I_F=100mA$	-	-	1000	
Reverse current	$I_R$	$V_R=25V$	-	-	2.0	<b>uA</b>
Reverse recovery time	$T_{rr}$	$I_F=10mA, I_R=10mA \text{ to } 1mA, R_L=100\Omega$	-	-	5.0	<b>nS</b>
Capacitance between terminals	$C_T$	$V_R=1V, f=1MHz$	-	-	10	<b>pF</b>

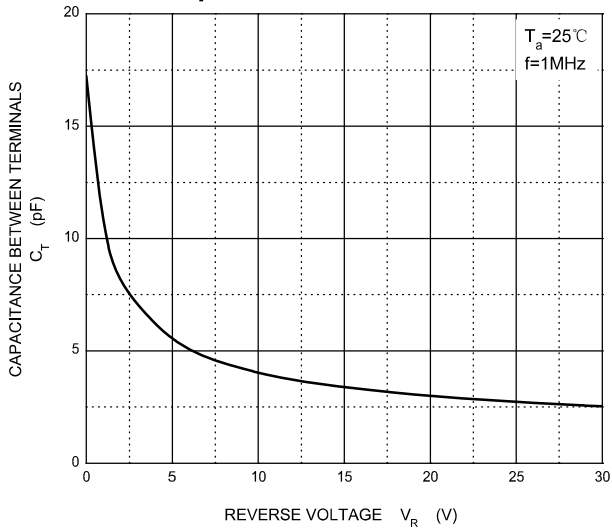
**Forward Characteristics**



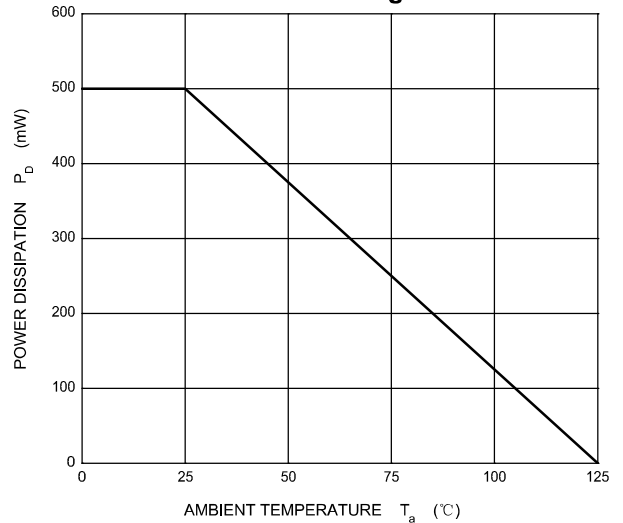
**Reverse Characteristics**



**Capacitance Characteristics**



**Power Derating Curve**



**Ordering information**

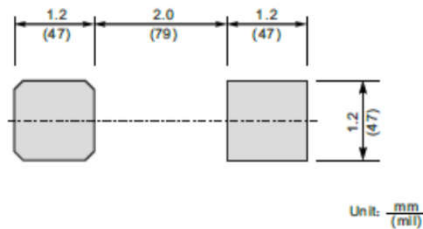
Package	Packing Description	Packing Quantity
SOD-123	Tape/Reel, 7" reel	3000PCS/Reel 120000PCS/Carton

**Package Dimensions**

**SOD-123**

Dim.	Millimeter(mm)		mil	
	Min.	Max.	Min.	Max.
A	0.9	1.3	35	51
C	0.09	0.22	3.5	8.7
D	1.5	1.8	59	71
E	2.5	2.8	98	110
E1	3.6	3.9	142	154
b	0.5	0.7	20	28
L1	0.25	0.45	10	18
A1	-	0.2	-	8
∠	9°			

**The recommended mounting pad size**



## Disclaimer

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