



# THE DATASHEET OF BAT54CWTR



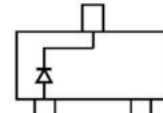
**BAT54W/AW/CW/SW  
SCHOTTKY BARRIER DIODE**

**Features:**

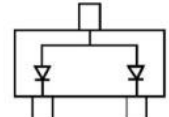
- Extremely Fast Switching Speed
- Low forward voltage

**Mechanical Data:**

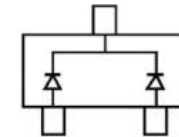
- Case: SOT-323, Molded plastic body
- Terminals: Plated leads solderable per MIL-STD-202, Method 208
- Polarity: Polarity symbols marked on case



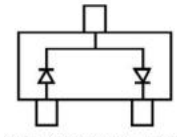
BAT54W Marking: KL5



BAT54AW Marking: KL6

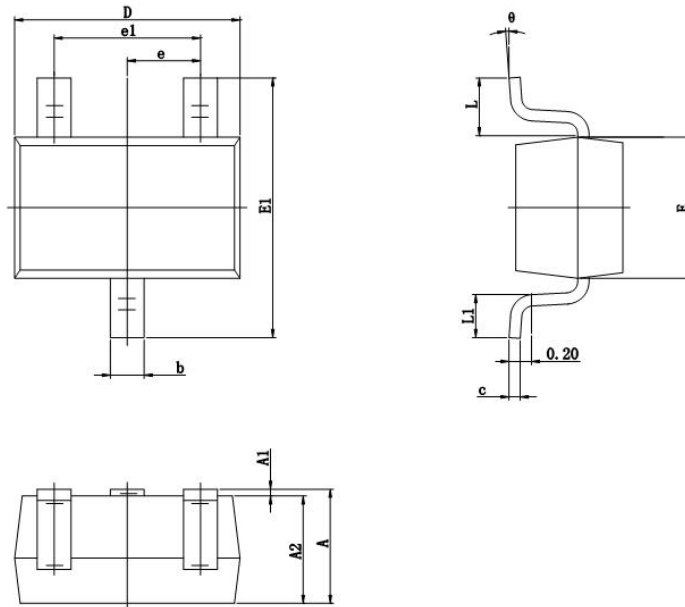


BAT54CW Marking: KL7



BAT54SW Marking: KL8

**Mechanical Dimensions: In Inches / mm**



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min	Max	Min	Max
A	0.900	1.100	0.035	0.043
A1	0.000	0.100	0.000	0.004
A2	0.900	1.000	0.035	0.039
b	0.200	0.400	0.008	0.016
c	0.080	0.150	0.003	0.006
D	2.000	2.200	0.079	0.087
E	1.150	1.350	0.045	0.053
E1	2.150	2.450	0.085	0.096
e	0.650 TYP		0.026 TYP	
e1	1.200	1.400	0.047	0.055
L	0.525 REF		0.021 REF	
L1	0.260	0.460	0.010	0.018
θ	0°	8°	0°	8°

**SOT-323**

**Marking Diagram:**



**BAT54W**



**BAT54AW**

KL5/KL6/KL7/KL8 = Part Name



**BAT54CW**



**BAT54SW**

**Cautions:** Molding resin  
Epoxy resin UL:94V-0

**Ordering Information:**

Device	Package	Shipping
BAT54W/AW/CW/SW	SOT-323(Pb-Free)	3000pcs / reel

For information on tape and reel specifications, including part orientation and tape sizes, please refer to our Tape and Reel Packaging Specification.

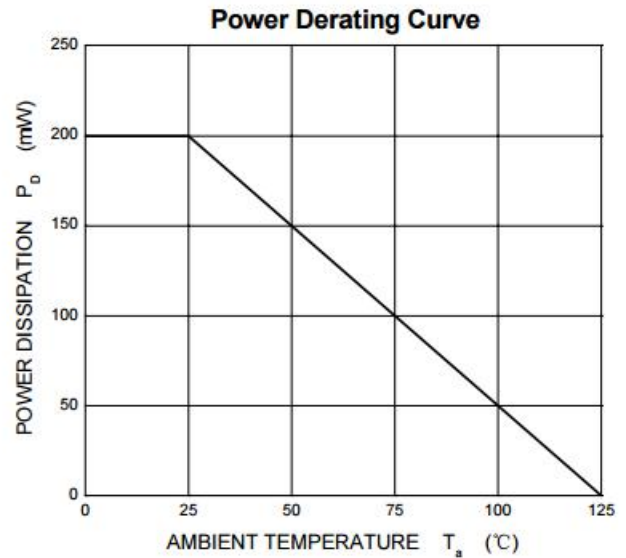
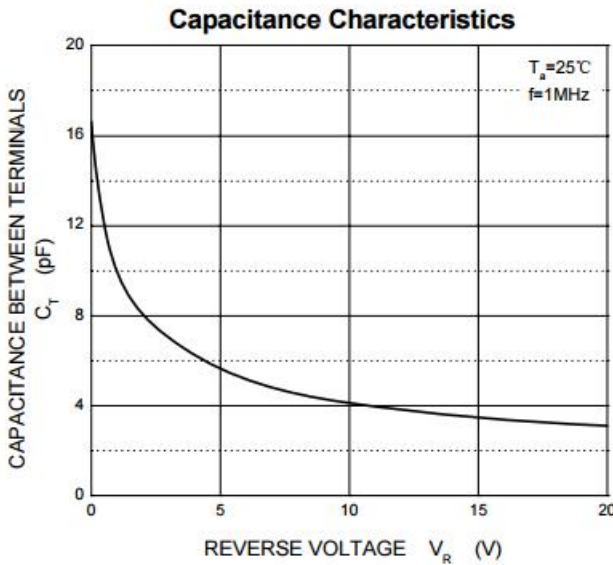
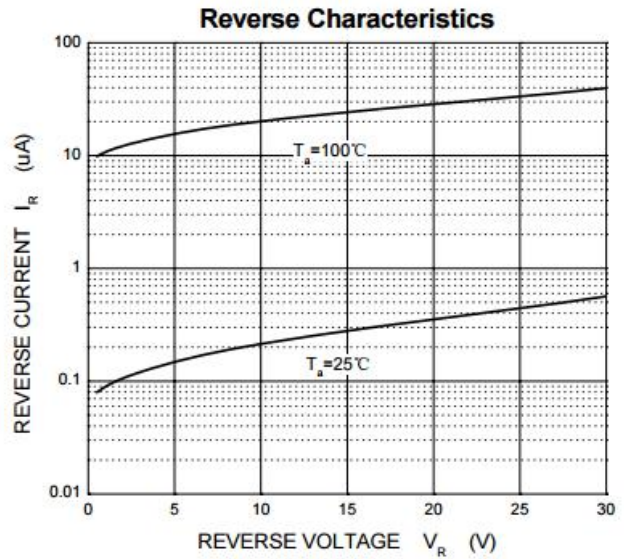
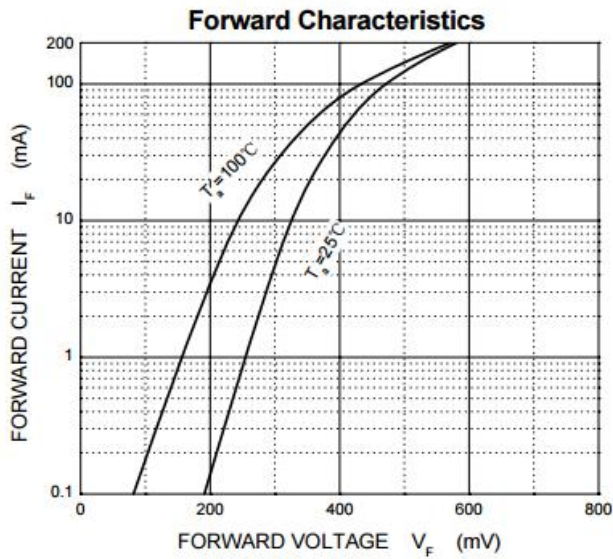
**Maximum Ratings and Electrical Characteristics** @ $T_A=25^{\circ}\text{C}$  unless otherwise specified

Single Phase, half wave, 60Hz, resistive or inductive load.  
For capacitive load, derate current by 20%.

Characteristic	Symbol	Limit	Unit
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	$V_{RRM}$ $V_{RWM}$ $V_R$	30	V
Forward Continuous Current	$I_{FM}$	200	mA
Non-Repetitive Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method)	$I_{FSM}$	600	mA
Power Dissipation	$P_d$	200	mW
Typical Thermal Resistance Junction to Ambient	$R_{\theta JA}$	500	$^{\circ}\text{C}/\text{W}$
Junction Temperature Range	$T_J$	125	$^{\circ}\text{C}$
Storage Temperature Range	$T_{STG}$	-55 to +150	$^{\circ}\text{C}$

Characteristic	Symbol	Max	Unit	Test Condition
Forward Voltage	$V_F$	0.24 0.32 0.40 0.50 1.0	V	$I_F=0.1\text{mA}$ $I_F=1\text{mA}$ $I_F=10\text{mA}$ $I_F=30\text{mA}$ $I_F=100\text{mA}$
Reverse Leakage Current	$I_R$	2	$\mu\text{A}$	$V_R=25\text{V}$
Diode capacitance	$C_T$	10	pF	$V_R=1\text{V}, f=1.0\text{MHz}$
Reverse recovery time	$t_{rr}$	5	ns	$I_F=I_R=10\text{mA}, I_{rr}=0.1 \times I_R, R_L=100\Omega$

**Typical Characteristics**



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