Elektronische Bauelemente

BAT54W Series-C

Voltage 30V

0.2 Amp Surface Mount Schottky Barrier Diode

RoHS Compliant Product
A suffix of "-C" specifies halogen & lead-free

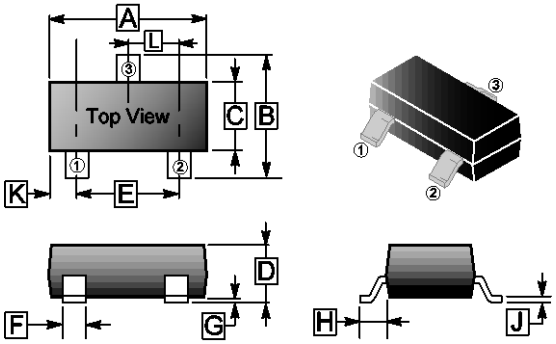
FEATURES

- Low Forward Voltage
- Fast Switching
- PN Junction Guard Ring for Transient and ESD Protection

MECHANICAL DATA

- Case: SOT-323, Molded Plastic
- Terminals: solderable per MIL-STD-202, Method 208
- Lead (Pb)-free and Halogen-free

SOT-323

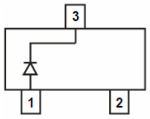
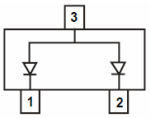
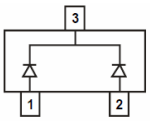
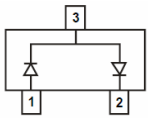


REF.	Millimeter		REF.	Millimeter	
	Min.	Max.		Min.	Max.
A	1.80	2.20	G	0.10 REF.	
B	1.80	2.55	H	0.525 REF.	
C	1.10	1.40	J	0.05	0.25
D	0.80	1.15	K	0.35 REF.	
E	1.20	2.00	L	0.65 TYP.	
F	0.15	0.50			

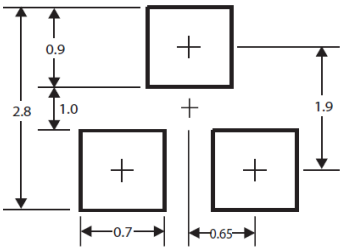
PACKAGE INFORMATION

Package	MPQ	Leader Size
SOT-323	3K	7 inch

ORDER INFORMATION

Part Number	Equivalent Circuit	Marking
BAT54W-C		KL5 / L4
BAT54AW-C		KL6 / L42
BAT54CW-C		KL7 / L43
BAT54SW-C		KL8 / L44

Mounting Pad Layout



*Dimensions in millimeters

ABSOLUTE MAXIMUM RATINGS (T_A=25°C unless otherwise specified)

Parameter	Symbol	Ratings	Unit
Peak Repetitive Peak Reverse Voltage	V_{RRM}	30	V
Working Peak Reverse Voltage	V_{RWM}	30	
DC Reverse Voltage	V_{DC}	30	
Forward Continuous Current	I_F	200	mA
Power Dissipation	P_D	200	mW
Repetitive Peak Forward Current @t≤1s	I_{FRM}	300	mA
Non-repetitive Peak Forward Surge Current @t=8.3ms	I_{FSM}	600	
Thermal Resistance Junction-Ambient	$R_{\theta JA}$	500	°C/W
Operating Junction Temperature Range	T_J	-40~125	°C
Storage Temperature Range	T_{STG}	-55~150	

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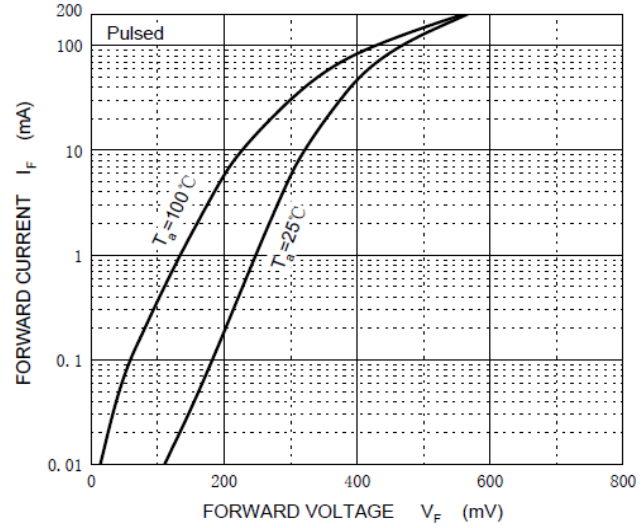
ELECTRICAL CHARACTERISTICS (T_A=25°C unless otherwise noted)

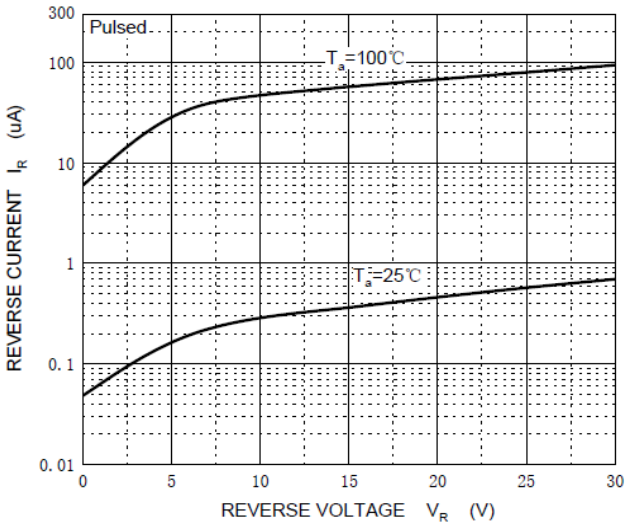
Parameter	Symbol	Min.	Typ.	Max.	Unit	Test Conditions
Forward Voltage	V_F	-	-	0.24	V	I_F=0.1mA
		-	-	0.32		I_F=1mA
		-	-	0.4		I_F=10mA
		-	-	0.5		I_F=30mA
		-	-	1		I_F=100mA
Reverse Current	I_R	-	-	2	μA	V_R=25V
Diode Capacitance	C_D	-	10	-	pF	V_R=1V, f=1MHz
Reverse Recovery Time	T_{rr}	-	5	-	nS	I_F=I_R=10mA, I_{rr}=0.1xI_R, R_L=100Ω

RATINGS AND CHARACTERISTIC CURVES

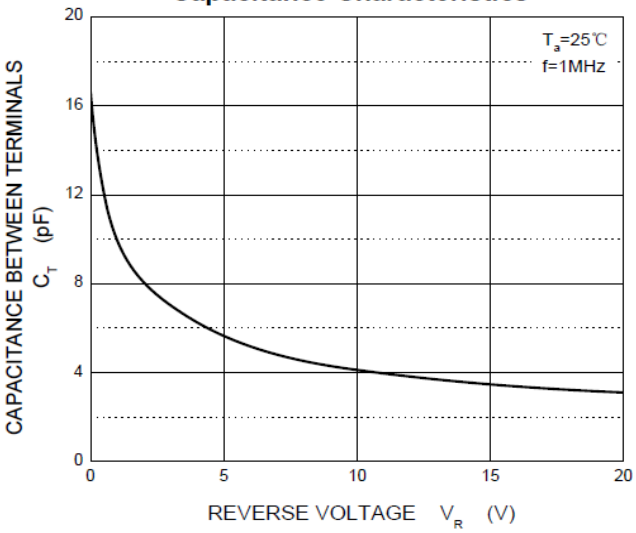
Forward Characteristics



Reverse Characteristics



Capacitance Characteristics



Power Derating Curve