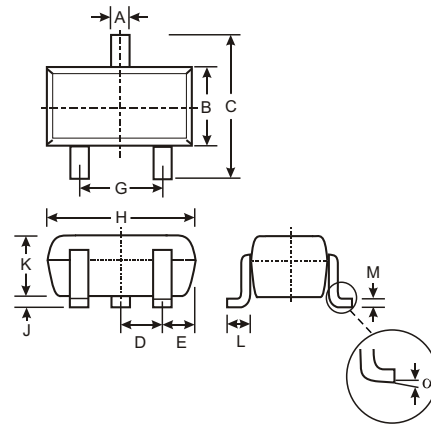


### Features

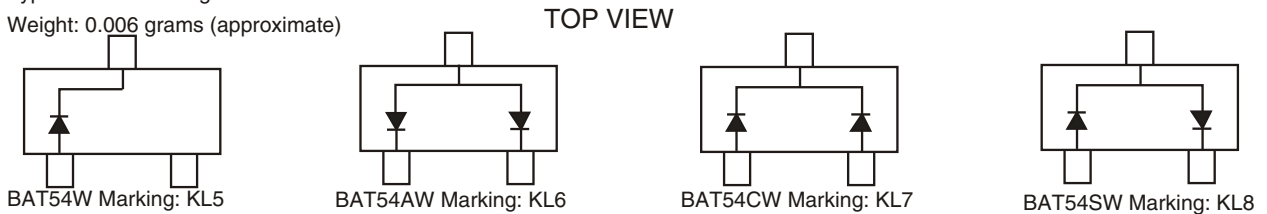
- Low Forward Voltage Drop
- Fast Switching
- Ultra-Small Surface Mount Package
- PN Junction Guard Ring for Transient and ESD Protection
- Lead Free/RoHS Compliant (Note 3)**
- Qualified to AEC-Q101 Standards for High Reliability**
- "Green" Device (Note 4 and 5)**

### Mechanical Data

- Case: SOT-323  
Case Material: Molded Plastic, "Green" Molding Compound, Note 5. UL Flammability Classification Rating 94V-0  
Moisture Sensitivity: Level 1 per J-STD-020C  
Terminals: Solderable per MIL-STD-202, Method 208  
Lead Free Plating (Matte Tin Finish annealed over Alloy 42 leadframe).  
Polarity: See Diagrams Below  
Marking: Type Code and Date Code, See Page 3  
Type Code: See Diagrams Below  
Weight: 0.006 grams (approximate)



SOT-323		
Dim	Min	Max
A	0.25	0.40
B	1.15	1.35
C	2.00	2.20
D	0.65 Nominal	
E	0.30	0.40
G	1.20	1.40
H	1.80	2.20
J	0.0	0.10
K	0.90	1.00
L	0.25	0.40
M	0.10	0.18
	0	8
All Dimensions in mm		



### Maximum Ratings @ T<sub>A</sub> = 25 °C unless otherwise specified

Characteristic	Symbol	Value	Unit
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	$V_{RRM}$ $V_{RWM}$ $V_R$	30	V
Forward Continuous Current (Note 1)	$I_F$	200	mA
Repetitive Peak Forward Current (Note 1)	$I_{FRM}$	300	mA
Forward Surge Current (Note 1) @ t < 1.0s	$I_{FSM}$	600	mA
Power Dissipation (Note 1)	$P_d$	200	mW
Thermal Resistance, Junction to Ambient Air (Note 1)	$R_{JA}$	625	°C/W
Operating and Storage Temperature Range	$T_j, T_{STG}$	-65 to +125	°C

### Electrical Characteristics @ T<sub>A</sub> = 25 °C unless otherwise specified

Characteristic	Symbol	Min	Typ	Max	Unit	Test Condition
Reverse Breakdown Voltage (Note 2)	$V_{(BR)R}$	30			V	$I_R = 100 \mu A$
Forward Voltage	$V_F$			240 320 400 500 1000	mV	$I_F = 0.1mA$ $I_F = 1mA$ $I_F = 10mA$ $I_F = 30mA$ $I_F = 100mA$
Reverse Leakage Current (Note 2)	$I_R$			2.0	μA	$V_R = 25V$
Total Capacitance	$C_T$			10	pF	$V_R = 1.0V, f = 1.0MHz$
Reverse Recovery Time	$t_{rr}$			5.0	ns	$I_F = 10mA$ through $I_R = 10mA$ to $I_R = 1.0mA, R_L = 100 \Omega$

Notes: 1. Mounted on FR4 PC Board with recommended pad layout which can be found on our website at <http://www.diodes.com/datasheets/ap02001.pdf>.

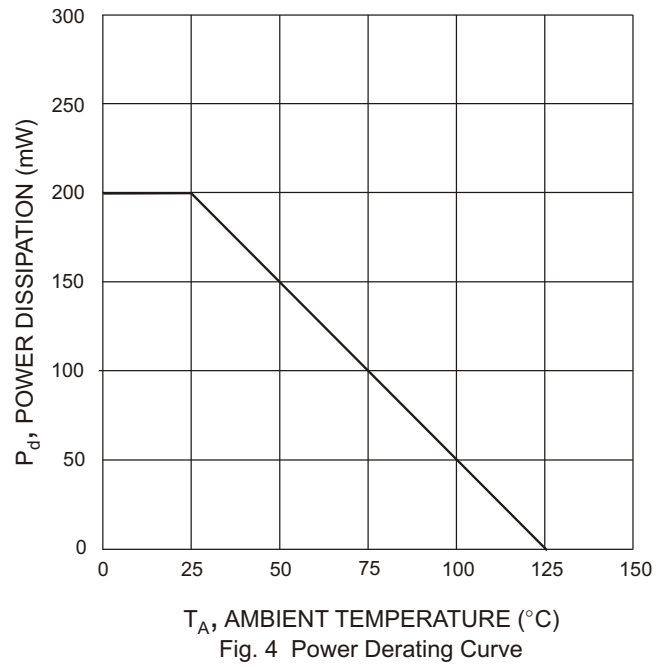
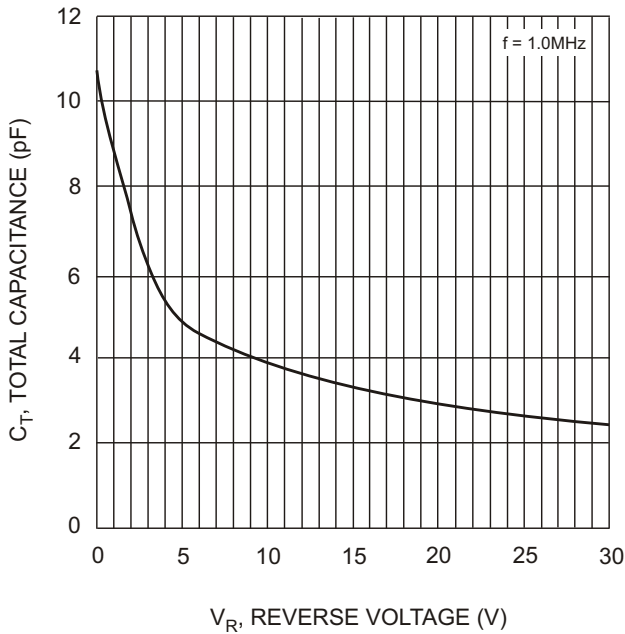
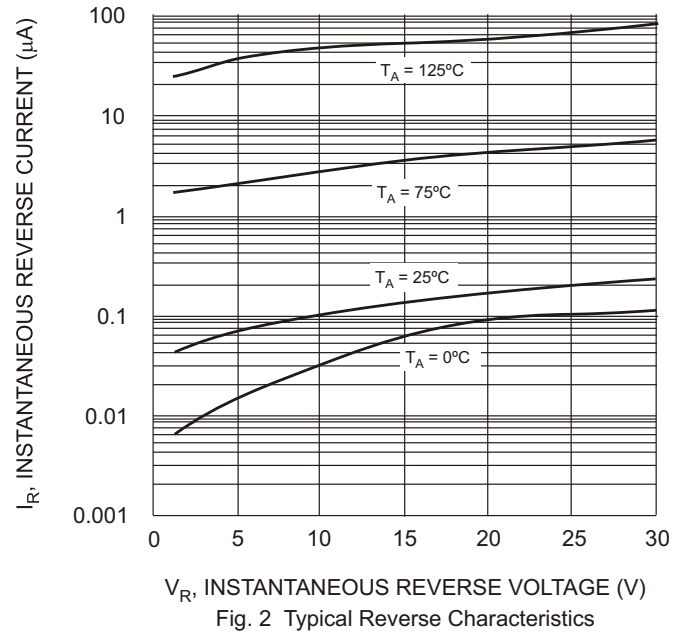
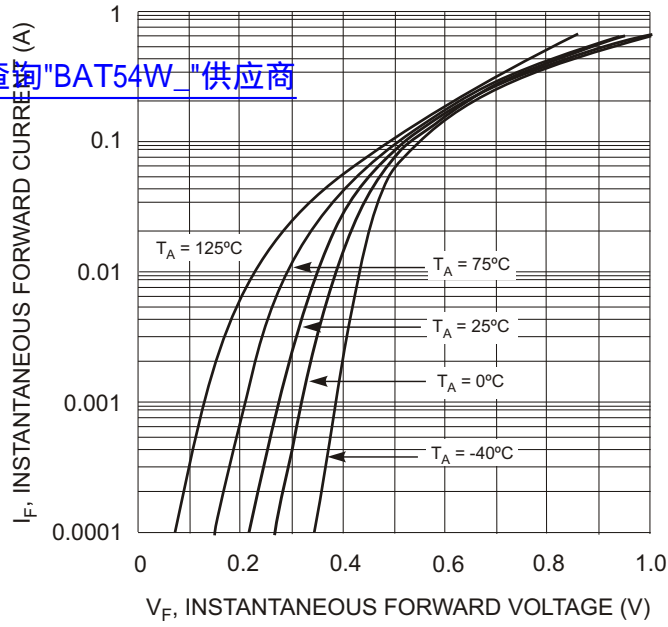
2. Short duration test pulse used to minimize self-heating effect.

3. No purposefully added lead.

4. Diodes Inc.'s "Green" policy can be found on our website at [http://www.diodes.com/products/lead\\_free/index.php](http://www.diodes.com/products/lead_free/index.php).

5. Product manufactured with Date Code 0609 (week 9, 2006) and newer are built with Green Molding Compound. Product manufactured prior to Date Code 0609 are built with Non-Green Molding Compound and may contain Halogens or Sb2O3 Fire Retardants.

[查询"BAT54W\\_"供应商](#)



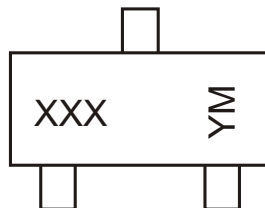
## Ordering Information (Note 5 and 6)

查询"BAT54W\_"供应商

Device	Packaging	Shipping
BAT54W-7-F	SOT-323	3000/Tape & Reel
BAT54AW-7-F	SOT-323	3000/Tape & Reel
BAT54CW-7-F	SOT-323	3000/Tape & Reel
BAT54SW-7-F	SOT-323	3000/Tape & Reel

- Notes: 5. Product manufactured with Date Code 0609 (week 9, 2006) and newer are built with Green Molding Compound. Product manufactured prior to Date Code 0609 are built with Non-Green Molding Compound and may contain Halogens or Sb2O3 Fire Retardants.
6. For Packaging Details, go to our website at <http://www.diodes.com/datasheets/ap02007.pdf>.

## Marking Information



XXX = Product Type Marking Code (See Page 1 Diagrams)  
 YM = Date Code Marking  
 Y = Year ex: N = 2002  
 M = Month ex: 9 = September

### Date Code Key

Year	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Code	L	M	N	P	R	S	T	U	V	W	X	Y	Z

Month	Jan	Feb	March	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Code	1	2	3	4	5	6	7	8	9	O	N	D

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