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BAT54 /A /C /S

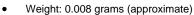
SURFACE MOUNT SCHOTTKY BARRIER DIODE

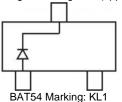
Features

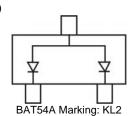
- Low Turn-on Voltage
- Fast Switching
- PN Junction Guard Ring for Transient and ESD Protection
- Lead Free/RoHS Compliant (Note 3)
- Qualified to AEC-Q101 Standards for High Reliability

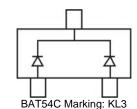
Mechanical Data

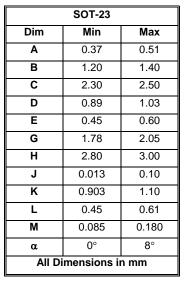
- Case: SOT-23
- Case Material: Molded Plastic. UL Flammability Classification Rating 94V-0
- Moisture Sensitivity: Level 1 per J-STD-020C
- Terminals: Solderable per MIL-STD-202, Method
- Lead Free Plating (Matte Tin Finish annealed over Alloy 42 leadframe).
- Polarity: See Diagrams Below
- Marking Information: See Page 3
- Ordering Information: See Page 3

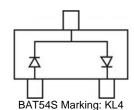












Maximum Ratings @T_A = 25°C unless otherwise specified

Characteristic	Symbol	Value	Unit		
Peak Repetitive Reverse Voltage	V_{RRM}				
Working Peak Reverse Voltage	V_{RWM}	30	V		
DC Blocking Voltage	V_R				
Forward Continuous Current (Note 2)	l _F	200	mA		
Repetitive Peak Forward Current	I _{FRM}	300	mA		
Forward Surge Current @ t < 1.0s	I _{FSM}	600	mA		
Power Dissipation (Note 2)	P_d	200	mW		
Thermal Resistance, Junction to Ambient Air (Note 2)	$R_{ heta JA}$	500	°C/W		
Operating and Storage Temperature Range	T _i , T _{STG}	-65 to +125	°C		

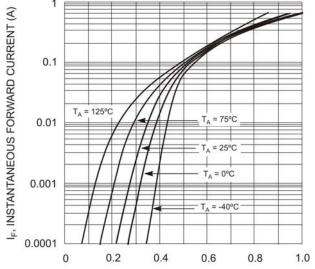
Electrical Characteristics @T_A = 25°C unless otherwise specified

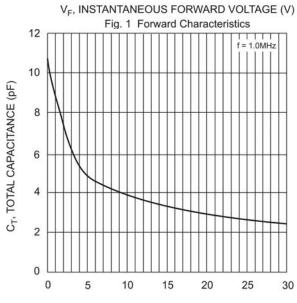
Characteristic	Symbol	Min	Тур	Max	Unit	Test Condition		
Reverse Breakdown Voltage (Note 1)	$V_{(BR)R}$	30	_	_	V	$I_{RS} = 100 \mu A$		
Forward Voltage	V _F	_	_	240 320 400 500 800	mV	$\begin{split} I_F &= 0.1 \text{mA} \\ I_F &= 1 \text{mA} \\ I_F &= 10 \text{mA} \\ I_F &= 30 \text{mA} \\ I_F &= 100 \text{mA} \end{split}$		
Reverse Leakage Current (Note 1)	I_R	_	_	2.0	μΑ	$V_R = 25V$		
Total Capacitance	C _T	_		10	pF	$V_R = 1.0V, f = 1.0MHz$		
Reverse Recovery Time	t _{rr}	_	_	5.0	ns	$I_F = 10 \text{mA} \text{ through } I_R = 10 \text{m}$ to $I_R = 1.0 \text{mA}$. $R_L = 100 \Omega$		

Notes:

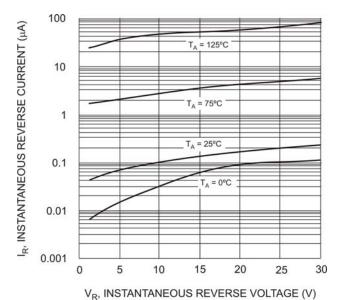
- Short duration test pulse used to minimize self-heating effect.
- Part mounted on FR-4 board with recommended pad layout, which can be found on our website at http://www.diodes.com/datasheets/ap02001.pdf.
- No purposefully added lead.

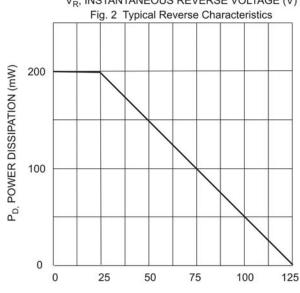












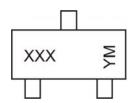


Ordering Information (Note 4)

Device	Packaging	Shipping
BAT54-7-F	SOT-23	3000/Tape & Reel
BAT54A-7-F	SOT-23	3000/Tape & Reel
BAT54C-7-F	SOT-23	3000/Tape & Reel
BAT54S-7-F	SOT-23	3000/Tape & Reel

4. 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)

YM = Date Code Marking Y = Year ex: T = 2006 M = Month ex: 9 = September

Date Code Kev

Year	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Code	J	K	L	М	N	Р	R	S	Т	U	V	W	X	Υ	Z
N	Month		Jan	Feb	Mar	Apr	May	Jun	Ju	Αι	ıg	Sep	Oct	Nov	Dec
	Code		1	2	3	4	5	6	7	8	3	9	0	N	D

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