



## BAT74

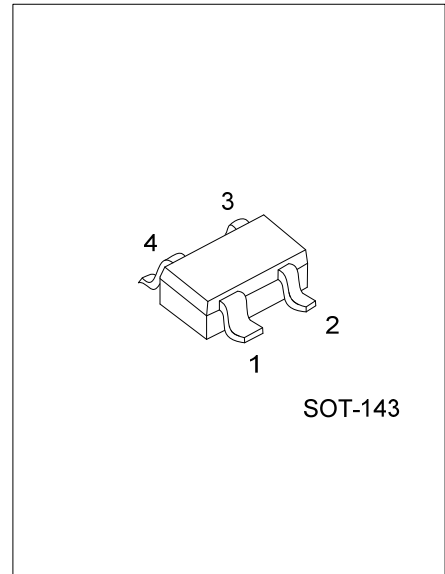
DIODE

### SCHOTTKY BARRIER DOUBLE DIODE

#### DESCRIPTION

The UTC **BAT74** is a Planar Schottky barrier double diode with an integrated guard ring for stress protection.

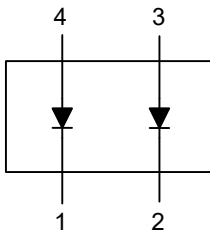
Two electrically isolated Schottky barrier diodes, encapsulated in a small SOT-143 Surface-Mounted Device (SMD) plastic package.



#### FEATURES

- \* Low forward voltage
- \* Small SMD plastic package

#### SYMBOL



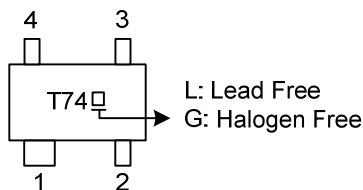
#### ORDERING INFORMATION

Ordering Number		Package	Pin Assignment				Packing
Lead Free	Halogen Free		1	2	3	4	
BAT74L-AD4-R	BAT74G-AD4-R	SOT-143	K1	K2	A2	A1	Tape Reel

Note: Pin Assignment: K: Cathode    A: Anode

<p>BAT74G-AD4-R</p> <ul style="list-style-type: none"> <li>(1) Packing Type</li> <li>(2) Package Type</li> <li>(3) Green Package</li> </ul>	<ul style="list-style-type: none"> <li>(1) R: Tape Reel</li> <li>(2) AD4: SOT-143</li> <li>(3) G: Halogen Free and Lead Free</li> </ul>
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#### MARKING



■ ABSOLUTE MAXIMUM RATINGS (T<sub>A</sub>=25°C, unless otherwise specified)

PARAMETER	SYMBOL	RATINGS	UNITS
<b>PER DIODE</b>			
Reverse Voltage	V <sub>R</sub>	30	V
Forward Continuous Current	I <sub>F</sub>	200	mA
Non-repetitive Peak Forward Surge Current	t <sub>p</sub> < 10ms I <sub>FSM</sub>	600	mA
Power Dissipation	P <sub>D</sub>	230	mW
Junction Temperature	T <sub>J</sub>	-55 ~ +125	°C
Storage Temperature	T <sub>STG</sub>	-55 ~ +150	°C
<b>DOUBLE DIODE OPERATION</b>			
Reverse Voltage	V <sub>R</sub>	30	V
		60 (Note 2)	V
Forward Current	I <sub>F</sub>	110 (Note 3)	mA

- Notes: 1. Absolute maximum ratings are those values beyond which the device could be permanently damaged. Absolute maximum ratings are stress ratings only and functional device operation is not implied.  
 2. Series connection.  
 3. If both diodes are in forward operation at the same moment, total device current is max. 110 mA. If one diode is in reverse operation and the other is in forward operation at the same moment, total device current is max. 200 mA.

■ THERMAL DATA

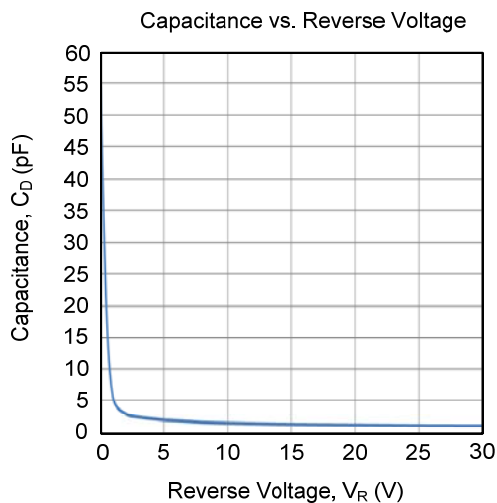
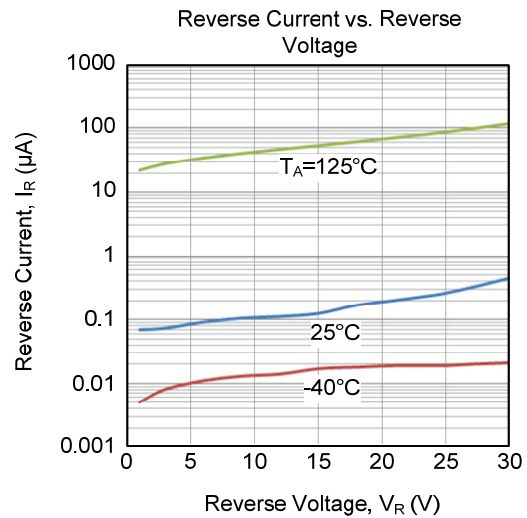
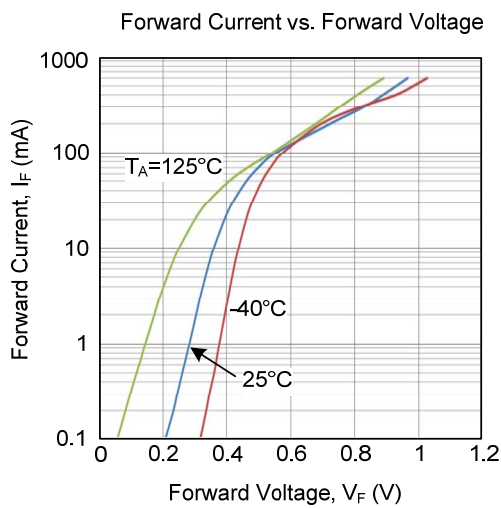
CHARACTERISTIC	SYMBOL	RATINGS	UNIT
Junction to Ambient	θ <sub>JA</sub>	500	°C/W

■ ELECTRICAL CHARACTERISTICS (T<sub>A</sub>=25°C, unless otherwise specified)

PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
<b>PER DIODE</b>						
Breakdown Voltage	V <sub>R</sub>	I <sub>R</sub> =100μA	30			V
Forward Voltage	V <sub>F</sub>	I <sub>F</sub> =0.1mA			240	mV
		I <sub>F</sub> =1mA			320	mV
		I <sub>F</sub> =10mA			400	mV
		I <sub>F</sub> =30mA			500	mV
		I <sub>F</sub> =100mA			800	mV
Reverse Current (Note 2)	I <sub>R</sub>	V <sub>R</sub> =25V			2	μA
Diode Capacitance	C <sub>D</sub>	f=1MHz, V <sub>R</sub> =1V		5.5	10	pF
Reverse Recovery Time	t <sub>rr</sub>	I <sub>F</sub> =0.2A, V <sub>R</sub> =30V, dI <sub>F</sub> /dt=100A/μs T <sub>J</sub> =25°C		35		ns

Notes: Pulse test: t<sub>p</sub> = 300μs; δ = 0.02.

## ■ TYPICAL CHARACTERISTICS



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