

# UNISONIC TECHNOLOGIES CO., LTD

BAT54SDW Preliminary DIODE

# SCHOTTKY BARRIER (DUAL) DIODES

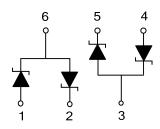
# DESCRIPTION

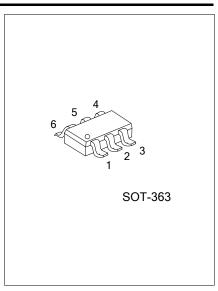
Planar Schottky barrier diodes are encapsulated in the SOT-363 small plastic SMD package. Single diodes and dual diodes with different pin configuration are available.

#### **■ FEATURES**

- \* Low forward voltage
- \* Guard ring protected
- \* Small plastic SMD package

# ■ SYMBOL

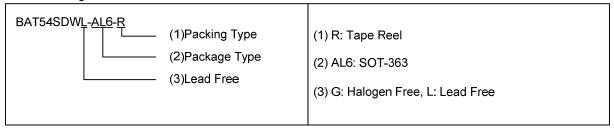




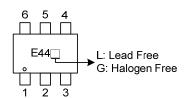
# **■ ORDERING INFORMATION**

Ordering Number		Dookooo	Pin Assignment					Daaldaa	
Lead Free	Halogen Free	Package	1	2	3	4	5	6	Packing
BAT54SDWL-AL6-R	BAT54SDWG-AL6-R	SOT-363	A1	K1	A2K2	A2	K2	A1K1	Tape Reel

Note: Pin Assignment: A: Anode K: Cathode



### MARKING



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# ■ ABSOLUTE MAXIMUM RATINGS

PARAMETER	SYMBOL	RATINGS	UNIT				
PER DIODE							
Continuous Reverse Voltage	$V_R$	30	V				
Continuous Forward Current	I <sub>F</sub>	200	mA				
Repetitive Peak Forward Current (t <sub>P</sub> <1s, δ≤0.5)	I <sub>FRM</sub>	300	mA				
Non-repetitive Peak Forward Current (t <sub>P</sub> <10ms)	I <sub>FSM</sub>	600	mA				
Junction Temperature	TJ	+125	°C				
Storage Temperature	T <sub>STG</sub>	-60 ~ +150	°C				
PER DEVICE							
Power Dissipation (T <sub>A</sub> ≤25°C)	P <sub>D</sub>	230	mW				

Note: 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.

# **■ THERMAL DATA**

	PARAMETER	SYMBOL	RATINGS	UNIT
J	Junction to Ambient	$\theta_{\text{JA}}$	625	°C/W

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

PARAMETER	SYMBOL	TEST CONDITIONS		TYP	MAX	UNIT
		$I_F = 0.1 \text{mA}$			240	mV
		I <sub>F</sub> = 1mA			320	mV
Forward Voltage	$V_{F}$	I <sub>F</sub> = 10mA			400	mV
		I <sub>F</sub> = 30mA			500	mV
		I <sub>F</sub> = 100mA			1000	mV
Reverse Current	I <sub>R</sub>	V <sub>R</sub> = 25V			2	μΑ
Reverse Recovery Time	t <sub>rr</sub>	When switched from $I_F$ =10mA to $I_R$ = 10mA, $R_L$ = 100 $\Omega$ measured at $I_R$ = 1mA			5	ns
Diode Capacitance	Съ	$f = 1 MHz, V_R = 1V;$			10	pF

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DIODE