# UNISONIC TECHNOLOGIES CO., LTD

UMT1N Preliminary

# GENERAL PURPOSE TRANSISTOR

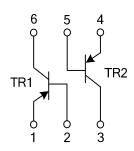
#### DESCRIPTION

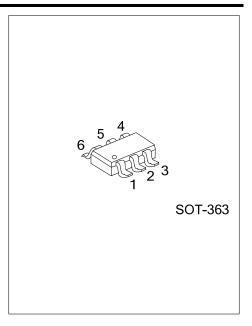
The UTC **UMT1N** is a dual transistor, including two PNP transistors. It uses UTC's advanced technology to provide the customers with high DC current gain, etc.

## **■ FEATURES**

\* High DC current gain (h<sub>FE</sub>>120@V<sub>CE</sub>=-6V, I<sub>C</sub>=-1mA)

#### ■ EQUIVALENT CIRCUITS



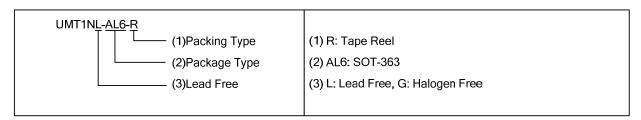


**DUAL TRANSISTOR** 

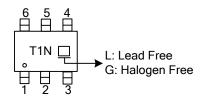
QW-R218-025.a

### **■** ORDERING INFORMATION

Ordering Number		Dookogo	Pin Assignment				Dooking		
Lead Free	Halogen Free	Package	1	2	3	4	5	6	Packing
UMT1NL-AL6-R	UMT1NG-AL6-R	SOT-363	E1	B1	C2	E2	B2	C1	Tape Reel



### **■** MARKING



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## ■ ABSOLUTE MAXIMUM RATINGS (T<sub>A</sub>=25°C)

PARAMETER	SYMBOL	RATINGS	UNIT
Collector-Base Voltage	$V_{CBO}$	-60	V
Collector-Emitter Voltage	V <sub>CEO</sub>	-50	V
Emitter-Base Voltage	$V_{EBO}$	-6	V
Collector Current	Ic	-0.15	A (DC)
Collector Power Dissipation	Pc	0.15	W
Junction Temperature	TJ	150	°C
Storage Temperature	T <sub>STG</sub>	-55~150	°C

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.

## **■ ELECTRICAL CHARACTERISTICS** (T<sub>A</sub>=25°C)

PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Collector-Base Breakdown Voltage	$BV_CBO$	I <sub>C</sub> =-50μA	-60			V
Collector-Emitter Breakdown Voltage	BV <sub>CEO</sub>	I <sub>C</sub> =-1mA	-50			V
Emitter-Base Breakdown Voltage	$BV_{EBO}$	I <sub>E</sub> =-50μA	-6			V
Collector CutOff Current	I <sub>CBO</sub>	V <sub>CB</sub> =-60V			-0.1	μΑ
Emitter CutOff Current	I <sub>EBO</sub>	V <sub>EB</sub> =-6V			-0.1	μΑ
Collector-Emitter Saturation Voltage	V <sub>CE(SAT)</sub>	I <sub>C</sub> /I <sub>B</sub> =-50mA/-5mA			-0.5	V
DC Current Transfer Ratio	$h_{FE}$	V <sub>CE</sub> =-6V, I <sub>C</sub> =-1mA	120		560	
Transition Frequency	$f_{T}$	V <sub>CE</sub> =-12V, I <sub>E</sub> =2mA, f=100MHz		140		MHz
Output Capacitance	Cob	V <sub>CB</sub> =-12V, I <sub>E</sub> =0A, f=1MHz		4	5	pF



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