# UNISONIC TECHNOLOGIES CO., LTD

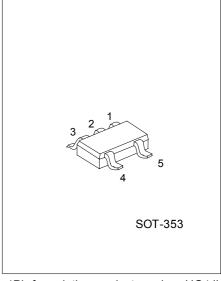
# UG4J

## **NPN SILICON TRANSISTOR**

# **EMITTER COMMON (DUAL DIGITAL TRANSISTORS)**

#### **FEATURES**

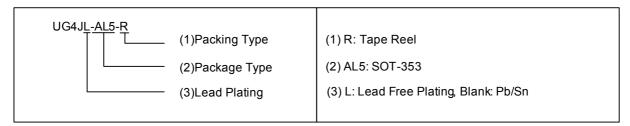
\* Two DTC114T chips in a SOT-353 package.



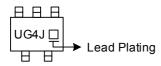
\*Pb-free plating product number: UG4JL

#### **ORDERING INFORMATION**

Order Number		Daakasa	Pin Assignment				Dealing		
Normal	Lead Free Plating	Package	1	2	3	4	5	Packing	
UG4J-AL5-R	UG4J-AL5-R	SOT-353	B1	E1,E2	B2	C2	C1	Tape Reel	



#### **MARKING INFORMATION**



www.unisonic.com.tw 1 of 2 QW-R222-001,A

# ■ ABSOLUTE MAXIMUM RATING (Ta=25 )

PARAMETER		RATINGS	UNIT	
Collector-Base Voltage		50	V	
Collector-Emitter Voltage	$V_{CEO}$	50	V	
Emitter-Base Voltage	$V_{EBO}$	5	V	
Collector Current	Ic	100	mA	
Total Power Dissipation	$P_{D}$	150(Note1)	mW	
Junction Temperature	$T_J$	+150		
Storage Temperature	T <sub>STG</sub>	-40 ~ +150		

Note 1. \*120mW per element must not be exceeded.

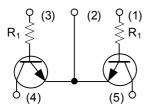
2. Absolute maximum ratings are those values beyond which the device could be permanently damaged. Absolute maximum ratings are stress ratings only and functional device operation is not implied.

### ■ ELECTRICAL CHARACTERISTICS (Ta=25 )

PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Collector-Base Breakdown Voltage	BV <sub>CBO</sub>	I <sub>C</sub> =50μA	50			V
Collector-Emitter Breakdown Voltage	BV <sub>CEO</sub>	I <sub>C</sub> =1mA	50			٧
Emitter-Base Breakdown Voltage	BV <sub>EBO</sub>	I <sub>E</sub> =1mA	5			>
Current Cutoff Current	I <sub>CBO</sub>	V <sub>CB</sub> =50V			0.5	μΑ
Emitter Cutoff Current	I <sub>EBO</sub>	V <sub>EB</sub> =4V			0.5	μA
Collector-Emitter Saturation Voltage	V <sub>CE(SAT)</sub>	IC/IB=10mA/1mA			0.3	V
DC Current Transfer Ratio		V <sub>CE</sub> =5V, I <sub>C</sub> =1mA	100	250	600	
Transition Frequency	f <sub>T</sub>	V <sub>CE</sub> =10V, I <sub>E</sub> =-5mA, f=100MHz*		250		MHz
Input Resistance	R <sub>1</sub>		7	10	13	ΚΩ

Note \* Transition frequency of the device.

# ■ EQUIVALENT CIRCUIT



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