



UG9H

Preliminary

DUAL TRANSISTOR

GENERAL PURPOSE (DUAL DIGITAL TRANSISTORS)

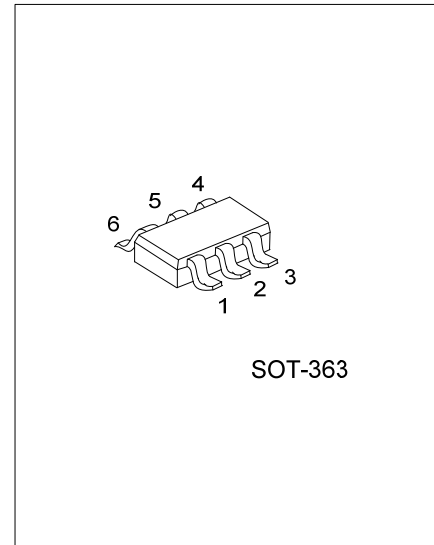
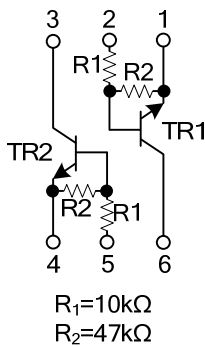
■ DESCRIPTION

The UTC **UG9H** is a dual digital transistor, the transistor elements are independent and obviating interference, so the mounting cost and area can be cut in half.

■ FEATURES

- * Mounting cost and area can be cut in half.
- * Transistor elements are independent, obviating interference.

■ EQUIVALENT CIRCUIT



■ ORDERING INFORMATION

Ordering Number		Package							Packing
Lead Free	Halogen Free		1	2	3	4	5	6	
UG9HL-AL6-R	UG9HG-AL6-R	SOT-363	G1	I1	O2	G2	I2	O1	Tape Reel

Note: Pin Assignment: G: GND I: Input O: Output

<p>UG9HL-AL6-R</p> <p>(1)Packing Type (2)Package Type (3)Halogen Free</p>	<p>(1) R: Tape Reel (2) AL6: SOT-363 (3) L: Lead Free, G: Halogen Free</p>
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■ ABSOLUTE MAXIMUM RATINGS ($T_A=25^\circ\text{C}$)

PARAMETER	SYMBOL	RATINGS	UNIT
Supply Voltage	V_{CC}	50	V
Input Voltage	V_{IN}	-6 ~ +40	V
Output Current	I_O	70	mA
	I_C	100	mA
Power Dissipation (Note 2)	P_D	150	mW
Junction Temperature	T_J	150	$^\circ\text{C}$
Storage Temperature	T_{STG}	-55 ~ +150	$^\circ\text{C}$

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. 120mW per element must not be exceeded.

■ ELECTRICAL CHARACTERISTICS ($T_A=25^\circ\text{C}$)

PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Input Voltage	$V_{I(OFF)}$	$V_{CC}=5V, I_O=100\mu\text{A}$			0.3	V
	$V_{I(ON)}$	$V_O=0.3V, I_O=1\text{mA}$	1.4			V
Output Voltage	$V_{O(ON)}$	$I_O/I_I=5\text{mA}/0.25\text{mA}$		0.1	0.3	V
Input Current	I_I	$V_I=5V$			0.88	mA
Output Current	$I_{O(OFF)}$	$V_{CC}=50V, V_I=0V$			0.5	μA
DC Current Gain	G_I	$V_O=5V, I_O=5\text{mA}$	68			
Transition Frequency	f_T	$V_{CE}=10V, I_E=-5\text{mA}, f=100\text{MHz}$ (Note 1)		250		MHz
Input Resistance	R_1		7	10	13	K Ω
Resistance Ratio	R_2/R_1		3.7	4.7	5.7	

Note: Transition frequency of the transistor.

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