



UD3H

Preliminary

DUAL TRANSISTOR

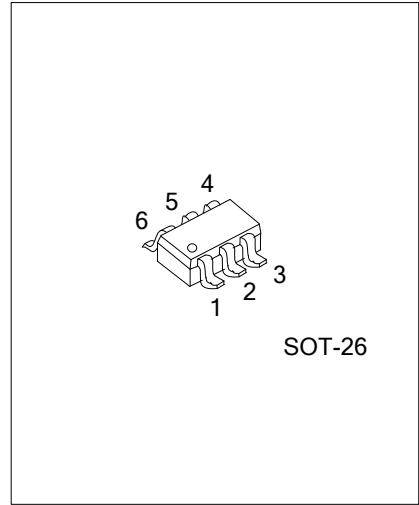
**GENERAL PURPOSE
(DUAL DIGITAL TRANSISTORS)**

■ **DESCRIPTION**

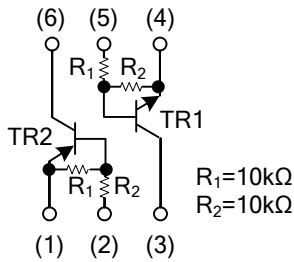
The UTC **UD3H** is Dual Digital Transistors including a NPN transistor and a PNP transistor. The transistor elements are independent to eliminate interference.

■ **FEATURES**

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



■ **EQUIVALENT CIRCUIT**



■ **ORDERING INFORMATION**

Ordering Number		Package	Pin Assignment						Packing
Lead Free	Halogen Free		1	2	3	4	5	6	
UD3HL-AG6-R	UD3HG-AG6-R	SOT-26	E2	B2	C1	E1	B1	C2	Tape Reel

<p>UD3HL-AG3-R</p> <p>(1)Packing Type</p> <p>(2)Package Type</p> <p>(3)Halogen Free</p>	<p>(1) R: Tape Reel</p> <p>(2) AG3: SOT-26</p> <p>(3) Halogen Free, L: Lead 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}	-10	V
		40	V
Output Current	I_O	50	mA
	$I_{C(MAX.)}$	100	mA
Power Dissipation (Note 2)	P_D	300	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. 200mW per element must not be exceeded.

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

PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Input Voltage	$V_{I(OFF)}$	$V_{CC}=5\text{V}, I_O=100\mu\text{A}$			0.5	V
	$V_{I(ON)}$	$V_O=0.3\text{V}, I_O=10\text{mA}$	3			V
Output Voltage	$V_{O(ON)}$	$I_O=10\text{mA}, I_I=0.5\text{mA}$		0.1	0.3	V
Input Current	I_I	$V_I=5\text{V}$			0.88	mA
Output Current	$I_{O(OFF)}$	$V_{CC}=50\text{V}, V_I=0\text{V}$			0.5	μA
Emitter Cutoff Current	G_I	$V_O=5\text{V}, I_O=5\text{mA}$	30			
Transition Frequency (Note 1)	f_T	$V_{CE}=10\text{V}, I_E=-5\text{mA}, f=100\text{MHz}$		250		MHz
Input Resistance	R_1		7	10	13	K Ω
Resistance Ratio	R_2/R_1		0.8	1	1.2	

Note: 1. Transition frequency of the device

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