



UG5K

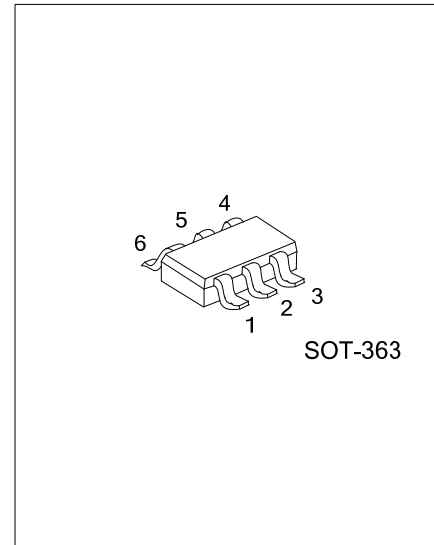
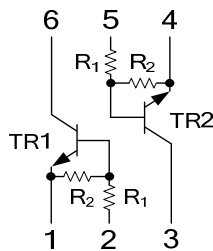
DUAL TRANSISTOR

GENERAL PURPOSE (DUAL DIGITAL TRANSISTORS)

FEATURES

* Two DTC114Y chips in a SOT-363 package.

EQUIVALENT CIRCUIT



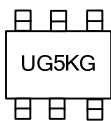
ORDERING INFORMATION

Ordering Number	Package	Pin Assignment						Packing
		1	2	3	4	5	6	
UG5KG-AL6-R	SOT-363	G1	I1	O2	G2	I2	O1	Tape Reel

Note: Pin Assignment: B: Base C: Collector E: Emitter

<p>UG5KG-AL6-R</p> <p>(1) Packing Type</p> <p>(2) Package Type</p> <p>(3) Green Package</p>	<p>(1) R: Tape Reel</p> <p>(2) AL6: SOT-363</p> <p>(3) G: Halogen Free and Lead Free</p>
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MARKING



■ ABSOLUTE MAXIMUM RATINGS ($T_A=25^\circ\text{C}$, unless others specified)

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

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.

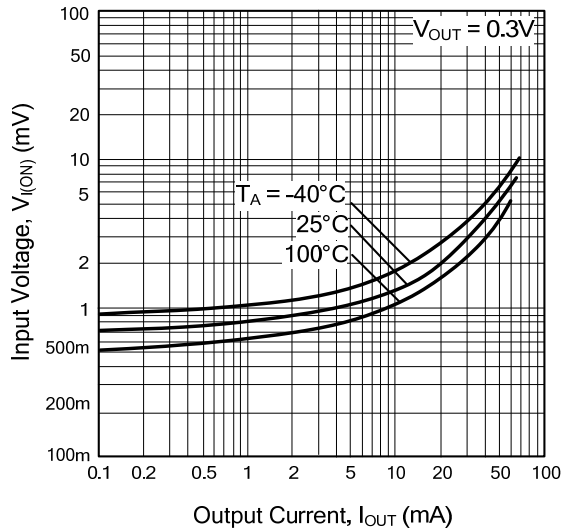
■ ELECTRICAL SPECIFICATIONS ($T_A=25^\circ\text{C}$, unless others specified)

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

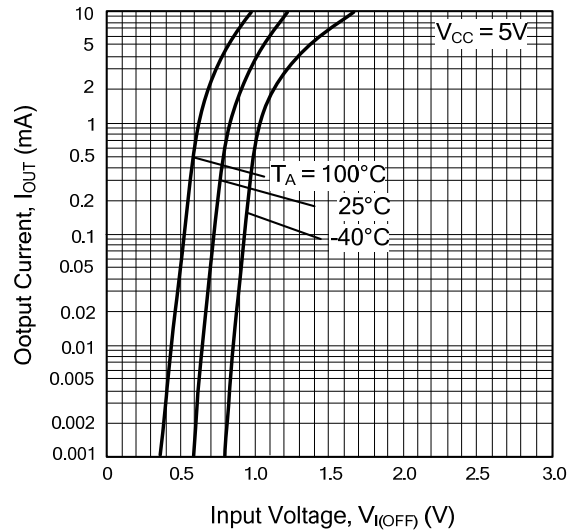
Note: Transition frequency of the device.

TYPICAL CHARACTERISTICS

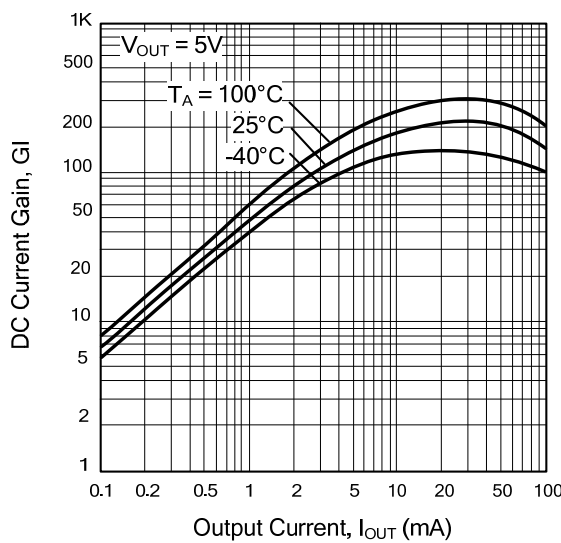
Input Voltage vs. Output Current
(ON Characteristics)



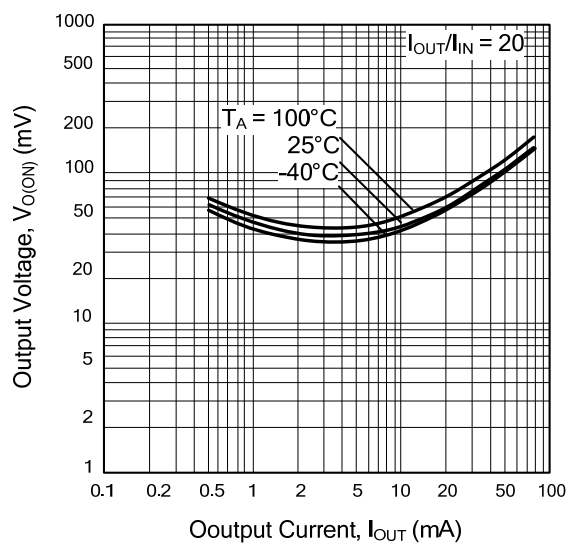
Output Current vs. Input Voltage
(OFF Characteristics)



DC Current Gain vs. Output Current



Output Voltage vs. Output Current



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