



UG5J

NPN SILICON TRANSISTOR

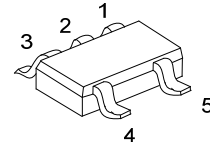
NPN DIGITAL TRANSISTOR (BUILT- IN BIAS RESISTORS)

■ FEATURES

- * Two DTC114Y chips in a SOT-353 package.
- * Mounting cost and area can be reduced in half.

■ STRUCTURE

- * Epitaxial planar type
- * NPN silicon transistor
(Built-in resistor type)
- * Halogen Free



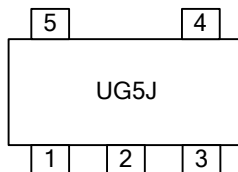
SOT-353

■ ORDERING INFORMATION

Ordering Number	Package	Pin Assignment					Packing
		1	2	3	4	5	
UG5JG-AL5-R	SOT-353	I1	G1,G2	I2	O2	O1	Tape Reel

<div>UG5JG-AL5-R</div> <div><div></div><div></div><div></div></div> <div>(1)Packing Type (2)Package Type (3)Halogen Free</div>	<div>(1) R: Tape Reel (2) AL5: SOT-353 (4) G: Halogen Free</div>
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■ MARKING INFORMATION



■ ABSOLUTE MAXIMUM RATING (Ta=25°C)

PARAMETER	SYMBOL	RATINGS	UNIT
Supply Voltage	V_{CC}	50	V
Input Voltage	V_{IN}	40	V
		-6	
Output Current	I_{OUT}	70	mA
	$I_{C(MAX)}$	100	
Total Power Dissipation	P_D	150 (Note 2)	mW
Junction Temperature	T_J	+150	°C
Storage Temperature	T_{STG}	-50 ~ +150	°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.

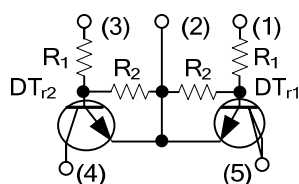
2. 120mW per element must not be exceeded.

■ ELECTRICAL CHARACTERISTICS (Ta=25°C)

PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Input Voltage	$V_{I(OFF)}$	$V_{CC}=5V, I_O=100\mu A$			0.3	V
	$V_{I(ON)}$	$V_O=0.3V, I_O=1mA$	1.4			
Output Voltage	$V_{O(ON)}$	$I_O=5mA, I_I=0.25mA$		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	$V_O=5V, I_O=5mA$	68			
Transition Frequency	f_T	$V_{CE}=10V, I_E=-5mA, f=100MHz$ (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: 1. Transition frequency of the device.

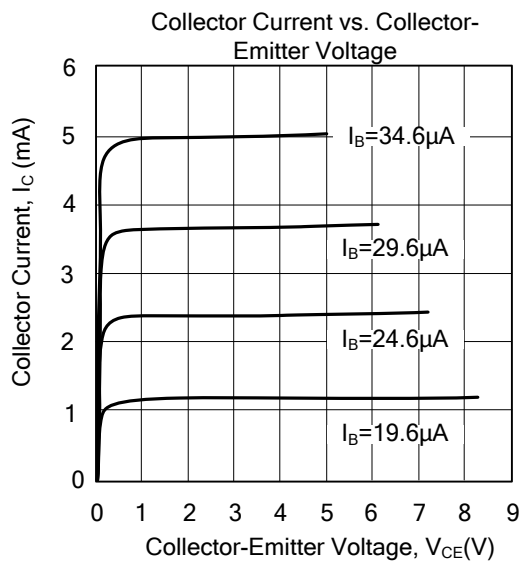
■ EQUIVALENT CIRCUIT (The following characteristic apply to both DT_{r1} and DT_{r2})



$$R_1=10k\Omega$$

$$R_2=47k\Omega$$

■ TYPICAL CHARACTERISTICS



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