



DTPP123J

Preliminary

PNP SILICON TRANSISTOR

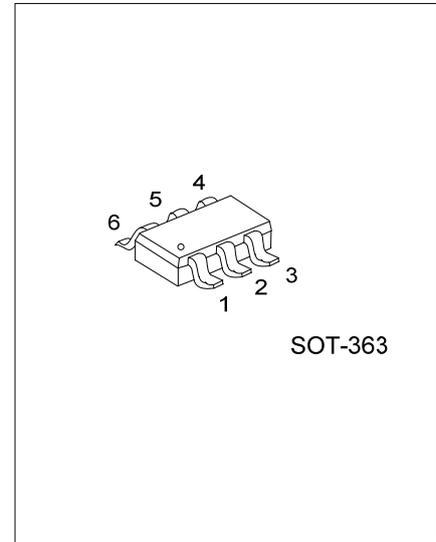
DIGITAL TRANSISTORS (BUILT-IN BIAS RESISTORS)

DESCRIPTION

The UTC **DTPP123J** is a PNP epitaxial transistor; it uses UTC's advanced technology to provide the customers with low collector-emitter saturation voltage, etc.

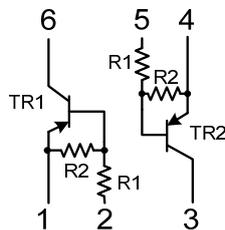
FEATURES

- * Two DTA123J chips in a SOT-363 package
- * Low collector-emitter saturation voltage
- * With built-in bias resistors
- * Simplify circuit design
- * Silicon epitaxial type
- * The internal two transistor elements are independent



SOT-363

EQUIVALENT CIRCUIT



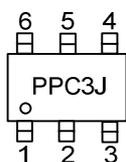
ORDERING INFORMATION

Ordering Number		Package	Pin Assignment						Packing
Lead Free	Halogen Free		1	2	3	4	5	6	
DTPP123JL-AL6-R	DTPP123JG-AL6-R	SOT-363	G1	I1	O2	G2	I2	O1	Tape Reel

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

DTPP123JG-AL6-R	(1)Packing Type	(1) R: Tape Reel
	(2)Package Type	(2) AL6: SOT-363
	(3)Green Package	(3) G: Halogen Free and Lead Free, L: Lead Free

MARKING



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

PARAMETER	SYMBOL	RATINGS	UNIT
Supply Voltage	V_{CC}	-50	V
Input Voltage	V_{IN}	-12 ~ +5	V
Output Current	I_O	-100	mA
	$I_{C(MAX)}$	-100	mA
Power Dissipation	P_D	200	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 CHARACTERISTICS ($T_A=25^\circ\text{C}$, unless otherwise specified)

PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Input Voltage	$V_{I(OFF)}$	$V_{CC}=-5V, I_O=-100\mu\text{A}$			-0.5	V
	$V_{I(ON)}$	$V_O=-0.3V, I_O=-5\text{mA}$	-1.1			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	$V_I=-5V$			-3.6	mA
Output Current	$I_{O(OFF)}$	$V_{CC}=-50V, V_I=0V$			-0.5	μA
DC Current Gain	G_I	$V_O=-5V, I_O=-10\text{mA}$	80			
Input Resistance	R_1		1.54	2.2	2.86	$\text{K}\Omega$
Resistance Ratio	R_2/R_1		17	21	26	
Transition Frequency	f_T	$V_{CE}=-10V, I_E=5\text{mA}, f=100\text{MHz}$ (Note)		250		MHz

Note: Transition frequency of the device

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