



DTA123J

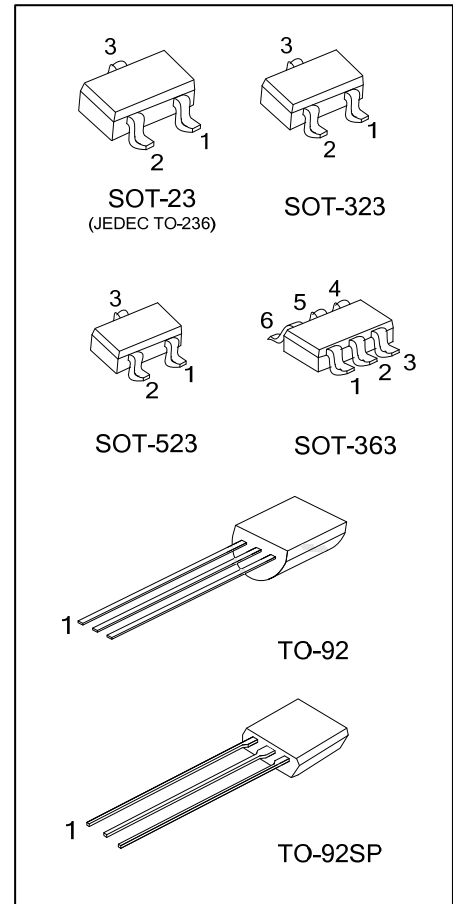
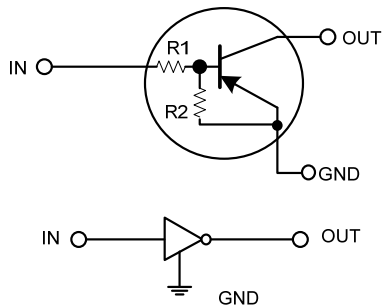
PNP SILICON TRANSISTOR

DIGITAL TRANSISTORS (BUILT-IN BIAS RESISTORS)

FEATURES

- * Built-in bias resistors that implies easy ON/OFF applications.
- * The bias resistors are thin-film resistors with complete isolation to allow positive input.

EQUIVALENT CIRCUIT



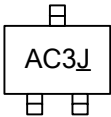
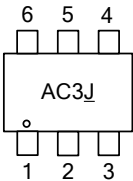
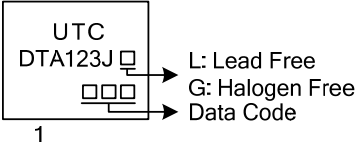
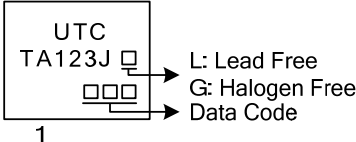
ORDERING INFORMATION

Ordering Number		Package	Pin Assignment			Packing
Lead Free	Halogen Free		1	2	3	
-	DTA123JG-AE3-R	SOT-23	G	I	O	Tape Reel
-	DTA123JG-AL3-R	SOT-323	G	I	O	Tape Reel
-	DTA123JG-AN3-R	SOT-523	G	I	O	Tape Reel
-	DTA123JG-AL6-T	SOT-363	G	I	O	Tube
-	DTA123JG-AL6-R	SOT-363	G	I	O	Tape Reel
DTA123JL-T92-B	DTA123JG-T92-B	TO-92	G	O	I	Tape Box
DTA123JL-T92-K	DTA123JG-T92-K	TO-92	G	O	I	Bulk
DTA123JL-T9S-K	DTA123JG-T9S-K	TO-92SP	G	O	I	Bulk
DTA123JL-T9S-B	DTA123JG-T9S-B	TO-92SP	G	O	I	Tape Box

Note: Pin assignment: G: GND I: IN O: OUT

DTA123JG-AE3-R (1) Packing Type (2) Package Type (3) Green Package	(1) R: Tape Reel, B: Tape Box, T: Tube, K: Bulk (2) AE3: SOT-23, AL3: SOT-323, AN3: SOT-523, AL6: SOT-363, T92: TO-92, T9S: TO-92SP (3) L: Lead Free, G: Halogen Free and Lead Free
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MARKING

SOT-23 / SOT-323 / SOT-523	SOT-363
	
TO-92	TO-92SP
	

■ **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	
Power Dissipation	SOT-23/SOT-323	P_D	200	mW
	SOT-363			
	SOT-523		150	
	TO-92		625	
	TO-92SP		550	
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	$V_{I(OFF)}$	$V_{CC}=-5\text{V}$, $I_O=-100\mu\text{A}$			-0.5	V
	$V_{I(ON)}$	$V_O=-0.3\text{V}$, $I_O=-5\text{mA}$	-1.1			
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	$V_I=-5\text{V}$			-3.6	mA
Output Current	$I_{O(OFF)}$	$V_{CC}=-50\text{V}$, $V_I=0\text{V}$			-0.5	μA
DC Current Gain	G_I	$V_O=-5\text{V}$, $I_O=-10\text{mA}$	80			
Input Resistance	R_1		1.54	2.2	2.86	K Ω
Resistance Ratio	R_2/R_1		17	21	26	
Transition Frequency	f_T	$V_{CE}=-10\text{V}$, $I_E=-5\text{mA}$, $f=100\text{MHz}$ (Note)		250		MHz

Note: Transition frequency of the device

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