

## DTA143X

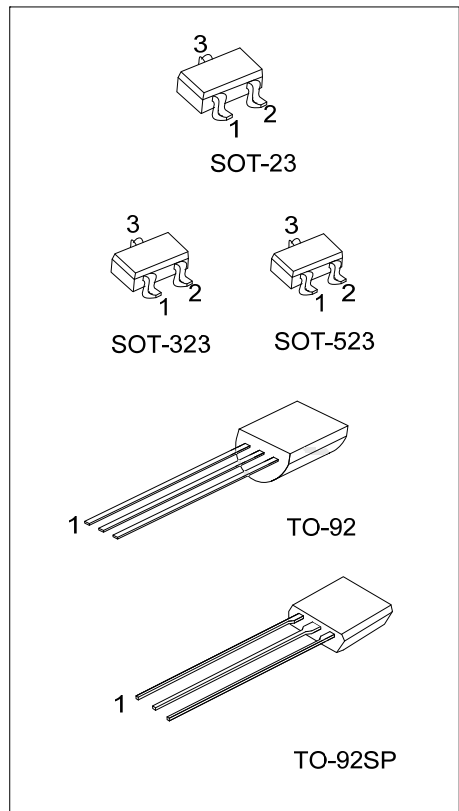
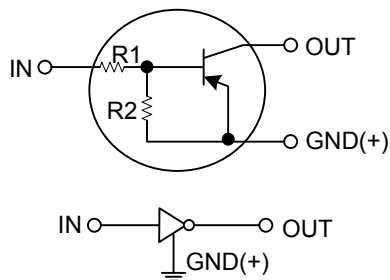
### PNP SILICON TRANSISTOR

## PNP DIGITAL TRANSISTOR

### 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	
DTA143XL-AE3-R	DTA143XG-AE3-R	SOT-23	I	G	O	Tape Reel
DTA143XL-AL3-R	DTA143XG-AL3-R	SOT-323	I	G	O	Tape Reel
DTA143XL-AN3-R	DTA143XG-AN3-R	SOT-523	I	G	O	Tape Reel
DTA143XL-T92-B	DTA143XG-T92-B	TO-92	G	O	I	Tape Box
DTA143XL-T92-K	DTA143XG-T92-K	TO-92	G	O	I	Bulk
DTA143XL-T9S-K	DTA143XG-T9S-K	TO-92SP	G	O	I	Bulk

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

<p>DTA143XG-AE3-R</p>	<p>(1) R: Tape Reel, B: Tape Box, K: Bulk                  (2) AE3: SOT-23, AL3: SOT-323, AN3: SOT-523,                  T92: TO-92, T9S: TO-92SP                  (3) G: Halogen Free and Lead Free, L: Lead Free</p>
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### MARKING

SOT-23 / SOT-323 / SOT-523	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		$V_I$	-20 ~ +7	V
Output Current		$I_O$	-100	mA
		$I_{C(MAX.)}$	-100	
Power Dissipation	SOT-23/SOT-323/SOT-523	$P_D$	300	mW
	TO-92		625	
	TO-92SP		550	
Junction Temperature		$T_J$	+150	$^\circ\text{C}$
Storage Temperature		$T_{STG}$	-55 ~ +150	$^\circ\text{C}$

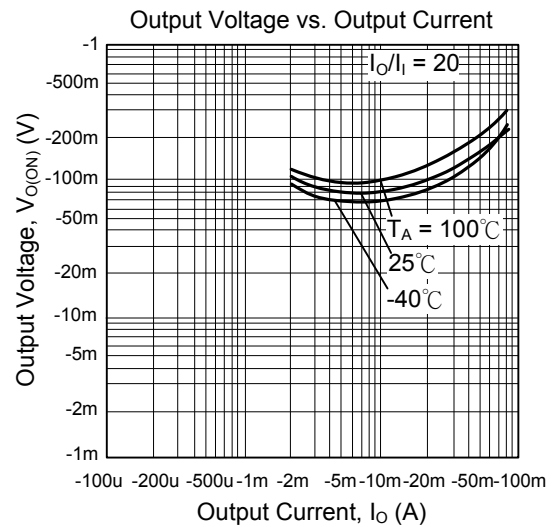
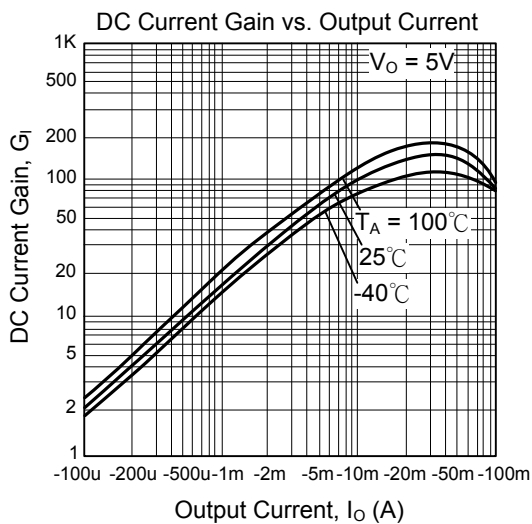
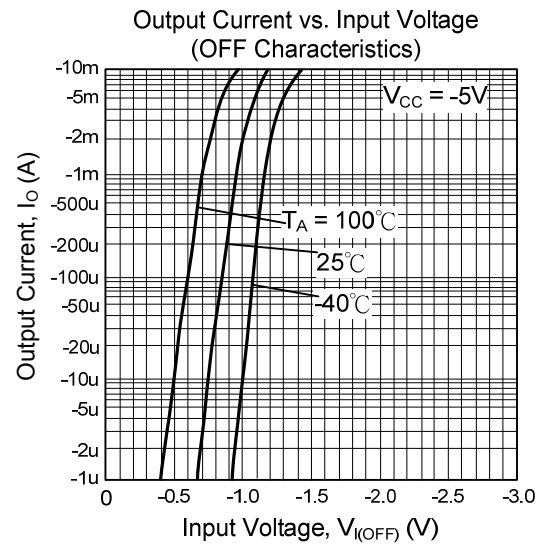
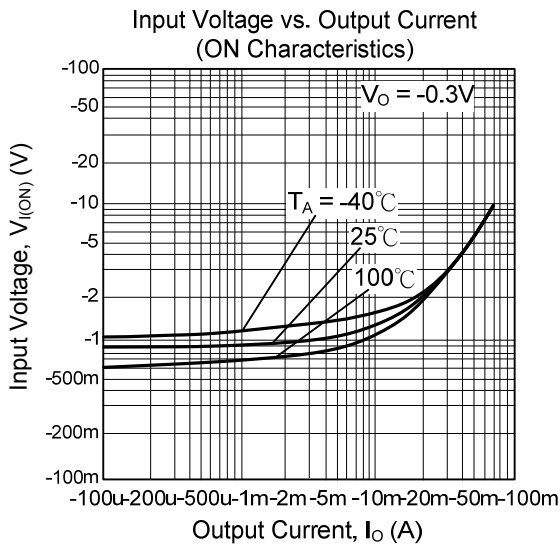
Note: Absolute maximum ratings are those values beyond which the device could be permanently damaged.  
Absolute maximum ratings are stress ratings only and functional device operation is not implied.

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

PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Input Voltage	$V_{I(OFF)}$	$V_{CC}=-5V, I_O=-100\mu\text{A}$			-0.3	V
	$V_{I(ON)}$	$V_O=-0.3V, I_O=-20\text{mA}$	-2.5			
Output Voltage	$V_{O(ON)}$	$I_O/I_I=-10\text{mA}/-0.5\text{mA}$		-0.1	-0.3	V
Input Current	$I_I$	$V_I=-5V$			-1.8	mA
Output Current	$I_{O(OFF)}$	$V_{CC}=-50V, V_I=0V$			-0.5	$\mu\text{A}$
DC Current Gain	$h_{FE}$	$V_O=-5V, I_O=-10\text{mA}$	30			
Input Resistance	$R_1$		3.29	4.7	6.11	K $\Omega$
Resistance Ratio	$R_2/R_1$		1.7	2.1	2.6	
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

### TYPICAL CHARACTERISTICS



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