



# DTA143Z

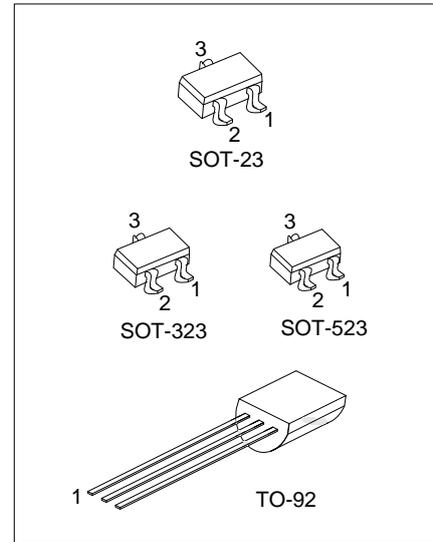
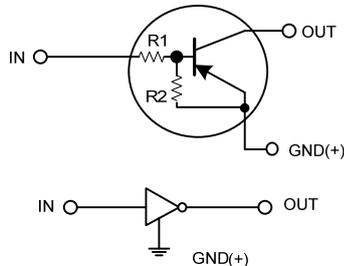
## PNP SILICON TRANSISTOR

### 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

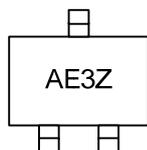


■ ORDERING INFORMATION

Ordering Number		Package	Pin Assignment			Packing
Normal	Lead Free Plating		1	2	3	
DTA143ZL-AE3-R	DTA143ZG-AE3-R	SOT-23	G	I	O	Tape Reel
DTA143ZL-AL3-R	DTA143ZG-AL3-R	SOT-323	G	I	O	Tape Reel
DTA143ZL-AN3-R	DTA143ZG-AN3-R	SOT-523	G	I	O	Tape Reel
DTA143ZL-T92-B	DTA143ZG-T92-B	TO-92	G	O	I	Tape Box
DTA143ZL-T92-K	DTA143ZG-T92-K	TO-92	G	O	I	Bulk

<p>DTA114EL-AE3-R</p>	<p>(1) B: Tape Box, K: Bulk, R: Tape Reel</p> <p>(2) AE3: SOT-23, AL3: SOT-323, AN3: SOT-523, T92: TO-92</p> <p>(3) L: Lead Free Plating, Blank: Pb/Sn</p>
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■ MARKING



■ ABSOLUTE MAXIMUM RATINGS (Ta = 25°C)

PARAMETER		SYMBOL	RATINGS	UNIT
Supply Voltage		V <sub>CC</sub>	-50	V
Input Voltage		V <sub>IN</sub>	-30 ~ +5	V
Output Current		I <sub>OUT(MAX)</sub>	-100	mA
Power Dissipation	SOT-523	P <sub>D</sub>	150	mW
	SOT-23/SOT-323		200	mW
	TO-92		300	mW
Junction Temperature		T <sub>J</sub>	150	°C
Storage Temperature		T <sub>STG</sub>	-55 ~ +150	°C

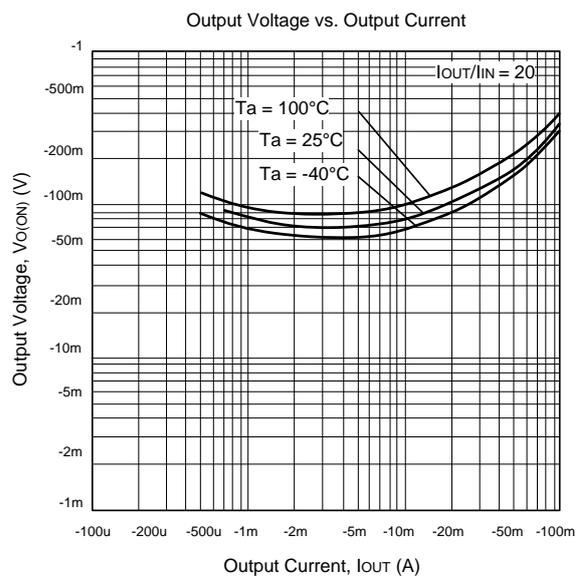
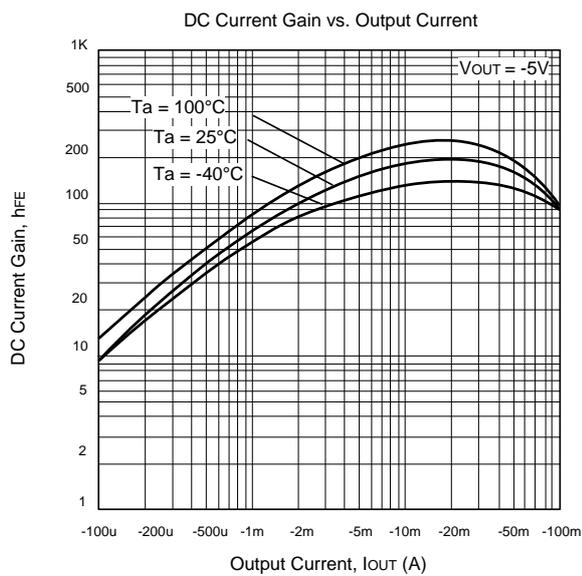
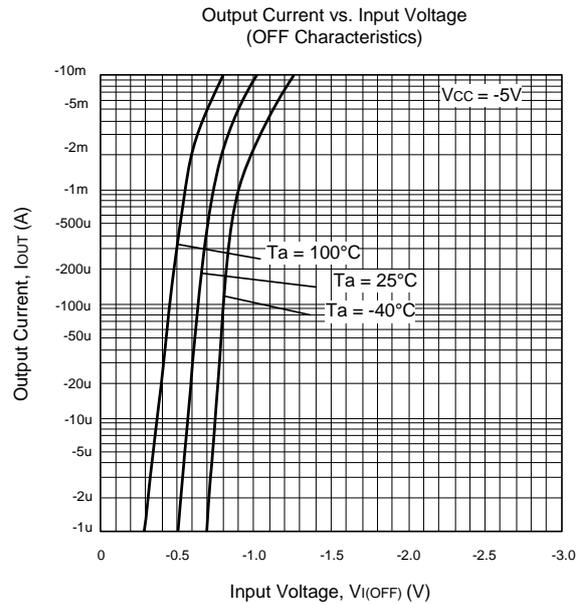
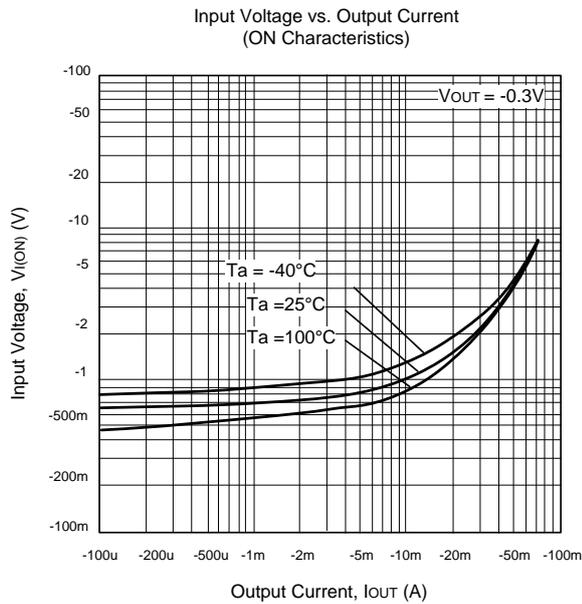
Note Absolute maximum ratings are those values beyond which the device could be permanently damaged. Absolute maximum ratings are stress ratings only and functional device operation is not implied.

■ ELECTRICAL CHARACTERISTICS (Ta= 25°C, unless otherwise specified.)

PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Input Voltage	V <sub>IN(OFF)</sub>	V <sub>CC</sub> = -5V, I <sub>OUT</sub> = -100 μA			-0.5	V
	V <sub>IN(ON)</sub>	V <sub>OUT</sub> = -0.3V, I <sub>OUT</sub> = -5mA	-3			
Output Voltage	V <sub>OUT(ON)</sub>	I <sub>OUT</sub> /I <sub>IN</sub> = -5mA/-0.25 mA		-0.1	-0.3	V
Input Current	I <sub>IN</sub>	V <sub>IN</sub> = -5V			-1.8	mA
Output Current	I <sub>OUT(OFF)</sub>	V <sub>CC</sub> = -50V, V <sub>IN</sub> =0V			-0.5	μA
DC Current Gain	h <sub>FE</sub>	V <sub>OUT</sub> = -5V, I <sub>OUT</sub> = -10mA	80			
Input Resistance	R <sub>1</sub>		3.29	4.7	6.11	kΩ
Resistance Ratio	R <sub>2</sub> /R <sub>1</sub>		8	10	12	
Transition Frequency	f <sub>T</sub>	V <sub>CE</sub> = -10 V, I <sub>E</sub> =-5mA, f=100MHz		250		MHz

Note: Transition frequency of the device

## TYPICAL CHARACTERISTICS



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