



DTA143E

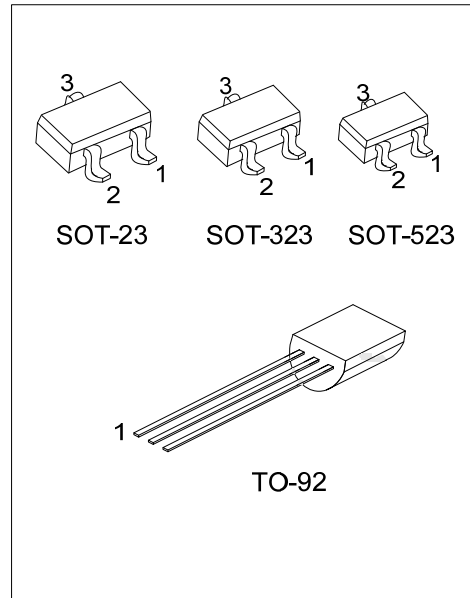
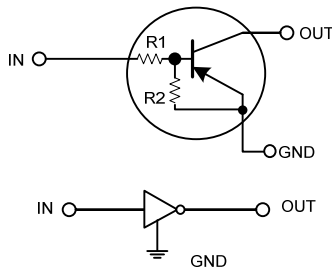
PNP SILICON TRANSISTOR

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

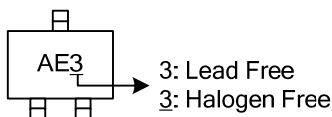


■ ORDERING INFORMATION

Ordering Number			Package	Pin Assignment			Packing
Normal	Lead Free	Halogen Free		1	2	3	
DTA143E-AE3-R	DTA143EL-AE3-R	DTA143EG-AE3-R	SOT-23	G	I	O	Tape Reel
DTA143E-AL3-R	DTA143EL-AL3-R	DTA143EG-AL3-R	SOT-323	G	I	O	Tape Reel
DTA143E-AN3-R	DTA143EL-AN3-R	DTA143EG-AN3-R	SOT-523	G	I	O	Tape Reel
DTA143E-T92-B	DTA143EL-T92-B	DTA143EG-T92-B	TO-92	G	O	I	Tape Box
DTA143E-T92-K	DTA143EL-T92-K	DTA143EG-T92-K	TO-92	G	O	I	Bulk

<p>DTA143EL-AE3-R</p> <p>(1)Packing Type (2)Package Type (3)Lead Plating</p>	<p>(1) B: Tape Box, K: Bulk, R: Tape Reel (2) AE3: SOT-23, AL3: SOT-323, AN3: SOT-523, T92: TO-92 (3) G:Halogen Free, L: Lead Free, Blank: Pb/Sn</p>
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■ MARKING(For SOT Package)



■ ABSOLUTE MAXIMUM RATINGS (Ta=25°C)

PARAMETER		SYMBOL	RATINGS	UNIT
Supply Voltage		V_{CC}	-50	V
Input Voltage		V_{IN}	-30~+10	V
Output Current		I_{OUT}	-100	mA
		$I_{C(MAX)}$	-100	
Power Dissipation	SOT-523	P_D	150	mW
	SOT-23/SOT-323		200	mW
	TO-92		300	mW
Junction Temperature		T_J	150	°C
Storage Temperature		T_{STG}	-55 ~ +150	°C

Note: Absolute maximum ratings are those values beyond which the device could be permanently damaged.

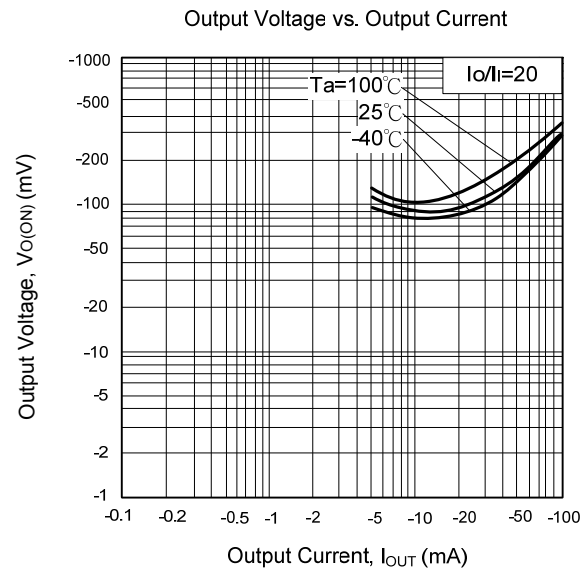
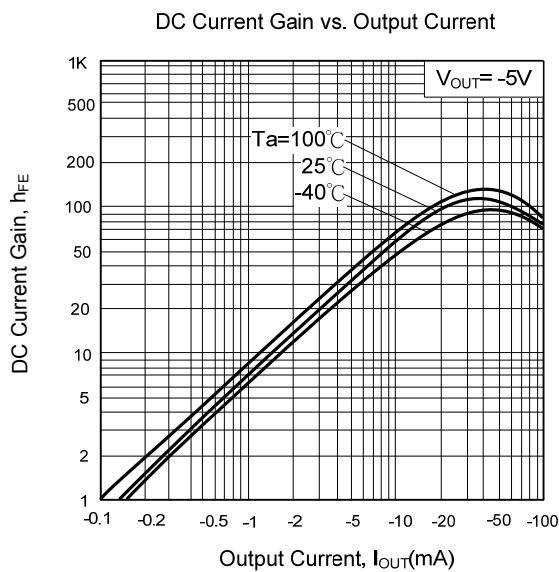
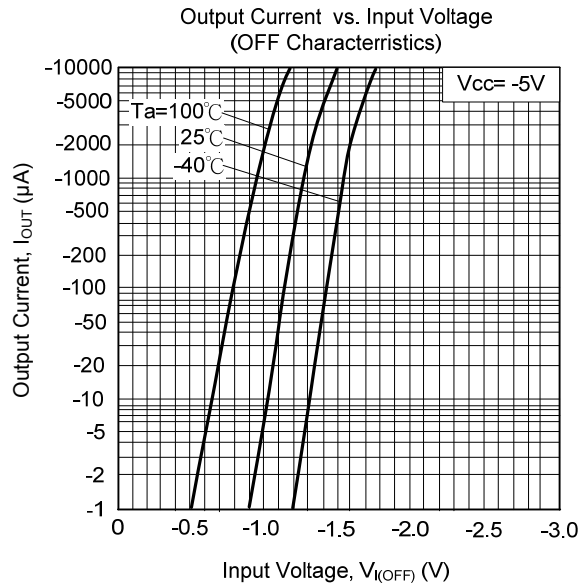
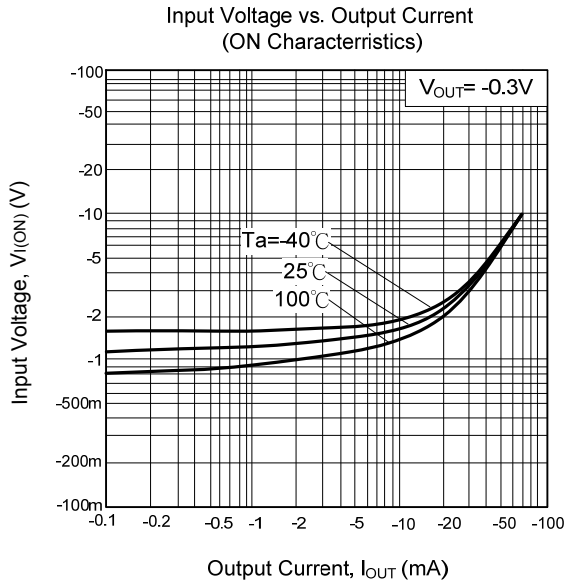
Absolute maximum ratings are stress ratings only and functional device operation is not implied.

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

PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Input Voltage	$V_{IN(OFF)}$	$V_{CC} = -5V, I_{OUT} = -100\mu A$			-0.5	V
	$V_{IN(ON)}$	$V_{OUT} = -0.3V, I_{OUT} = -20mA$	-3			
Output Voltage	$V_{OUT(ON)}$	$I_{OUT}/I_{IN} = -10mA/-0.5mA$		-0.1	-0.3	V
Input Current	I_{IN}	$V_{IN} = -5V$			-1.8	mA
Output Current	$I_{OUT(OFF)}$	$V_{CC} = -50V, V_{IN} = 0V$			-0.5	μA
DC Current Gain	h_{FE}	$V_{OUT} = -5V, I_{OUT} = -10mA$	20			
Input Resistance	R_1		3.29	4.7	6.11	k Ω
Resistance Ratio	R_2/R_1		0.8	1	1.2	
Transition Frequency	f_T	$V_{CE} = -10V, I_E = -5mA, f = 100MHz$ (Note)		250		MHz

Note: Transition frequency of the device

TYPICAL CHARACTERISTICS



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