



DTA144E

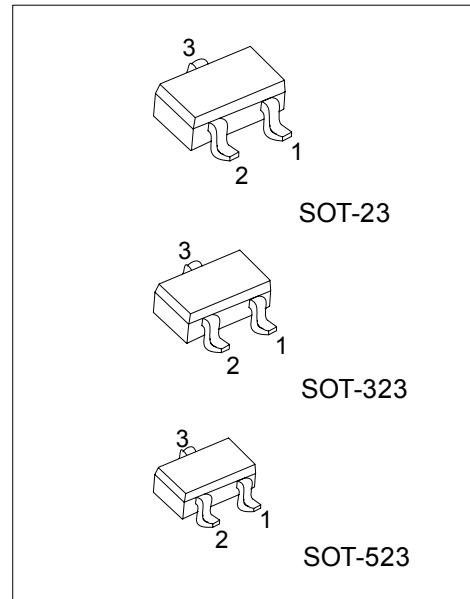
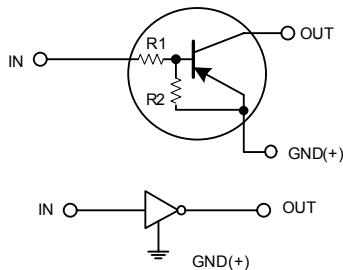
PNP SILICON TRANSISTOR

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



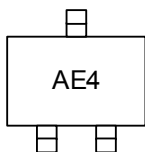
*Pb-free plating product number:DTA144EL

■ ORDERING INFORMATION

Order Number		Package	Pin Assignment			Packing
Normal	Lead Free Plating		1	2	3	
DTA144E-AE3-R	DTA144EL-AE3-R	SOT-23	G	I	O	Tape Reel
DTA144E-AL3-R	DTA144EL-AL3-R	SOT-323	G	I	O	Tape Reel
DTA144E-AN3-R	DTA144EL-AN3-R	SOT-523	G	I	O	Tape Reel

<p>DTA144EL-AE3-R</p>	<p>(1) Packing Type</p> <p>(2) Package Type</p> <p>(3) Lead Plating</p>	<p>(1) R: Tape Reel</p> <p>(2) AE3: SOT-23, AL3: SOT-323, AN3: SOT-523</p> <p>(3) L: Lead Free Plating, Blank: Pb/Sn</p>
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■ MARKING



For SOT-23/SOT-323/SOT-523 Package

■ ABSOLUTE MAXIMUM RATINGS (Ta = 25)

PARAMETER	SYMBOL	RATING	UNIT
Supply Voltage	V_{CC}	-50	V
Input Voltage	V_{IN}	-40~+10	V
Output Current	I_{OUT}	-30	mA
	$I_{O(MAX)}$	-100	
Power Dissipation	SOT-523	P_D	150
	SOT-23/SOT-323		200
Junction Temperature	T_J	150	°C
Storage Temperature	T_{STG}	-55~+150	°C

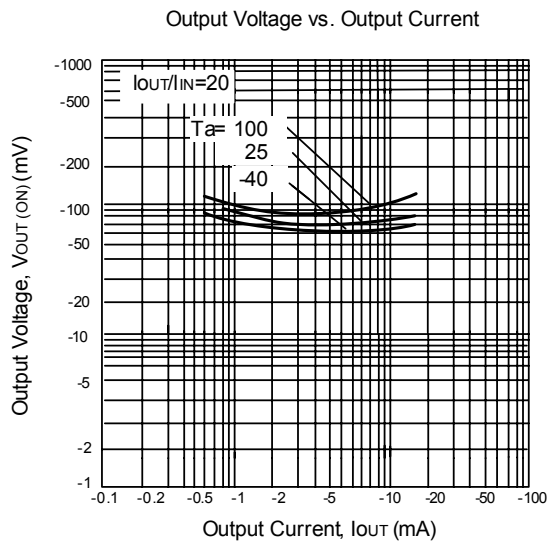
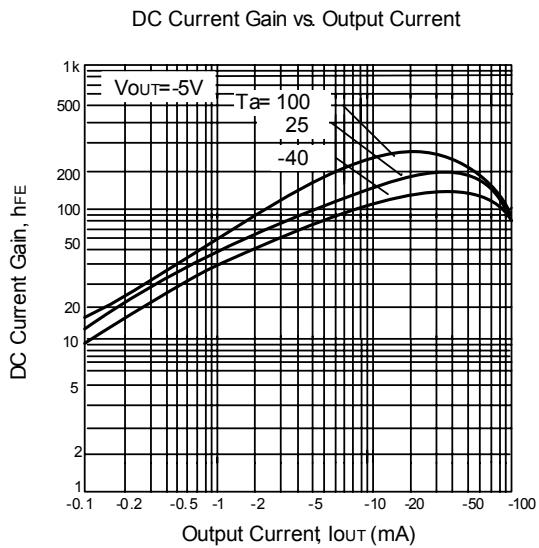
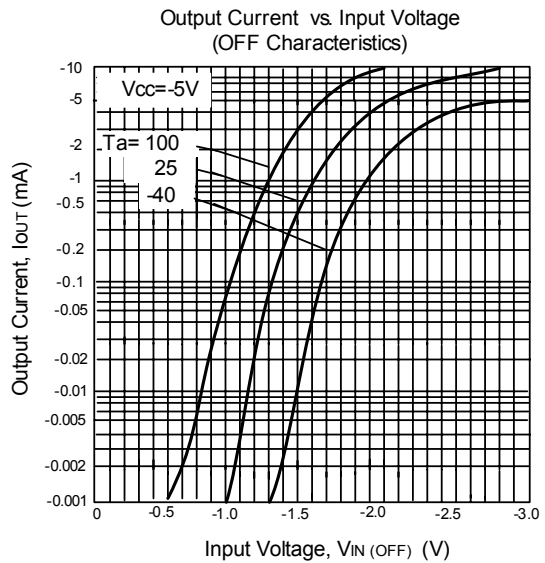
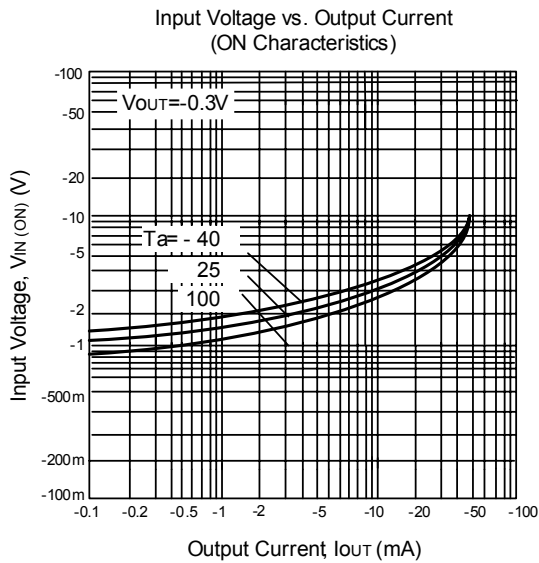
Note Absolute maximum ratings are those values beyond which the device could be permanently damaged. Absolute maximum ratings are stress ratings only and functional device operation is not implied.

■ ELECTRICAL CHARACTERISTICS (Ta= 25 , 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
	$V_{IN(ON)}$	$V_{OUT} = -0.3V, I_{OUT} = -2mA$	-3			V
Output Voltage	$V_{OUT(ON)}$	$I_{OUT}/I_{IN} = -10mA/-0.5 mA$		-0.1	-0.3	V
Input Current	I_{IN}	$V_{IN} = -5V$			-0.18	mA
Output Current	$I_{OUT(OFF)}$	$V_{CC} = -50V, V_{IN} = 0V$			-0.5	μA
DC Current Gain	h_{FE}	$V_{OUT} = -5V, I_{OUT} = -5mA$	68			
Input Resistance	R_1		32.9	47	61.1	k Ω
Resistance Ratio	R_2/R_1		0.8	1	1.2	
Transition Frequency	f_T	$V_{CE} = -10 V, I_E = 5mA, f = 100MHz^*$		250		MHz

*Transition frequency of the device.

TYPICAL CHARACTERISTICS



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