



DTA114E

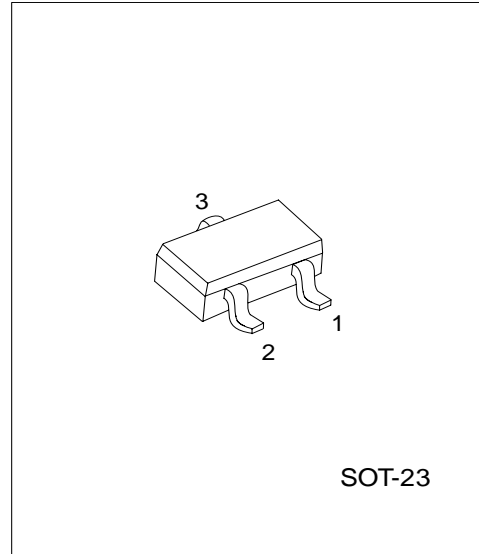
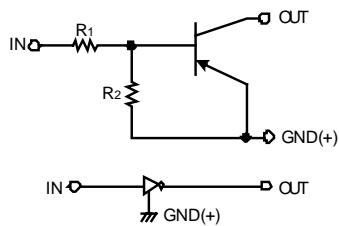
PNP EPITAXIAL SILICON TRANSISTOR

PNP DIGITAL TRANSISTOR (BUILT-IN RESISTORS)

■ FEATURES

- *Built-in bias resistors enable the configuration of an inverter circuit without connecting external input resistors (see the equivalent circuit).
- *The bias resistors consist of thin-film resistors with complete isolation to allow positive biasing of the input. They also have the advantage of almost completely eliminating parasitic effects.
- *Only the on / off conditions need to be set for operation, making device design easy.

■ EQUIVALENT CIRCUIT



SOT-23

*Pb-free plating product number:DTA114EL

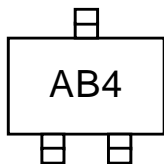
■ PIN CONFIGURATION

PIN NO.	PIN NAME
1	GND
2	IN
3	OUT

■ ORDERING INFORMATION

Order Number		Package	Packing
Normal	Lead free		
DTA114E-AE3-R	DTA114EL-AE3-R	SOT-23	Tape Reel

■ MARKING



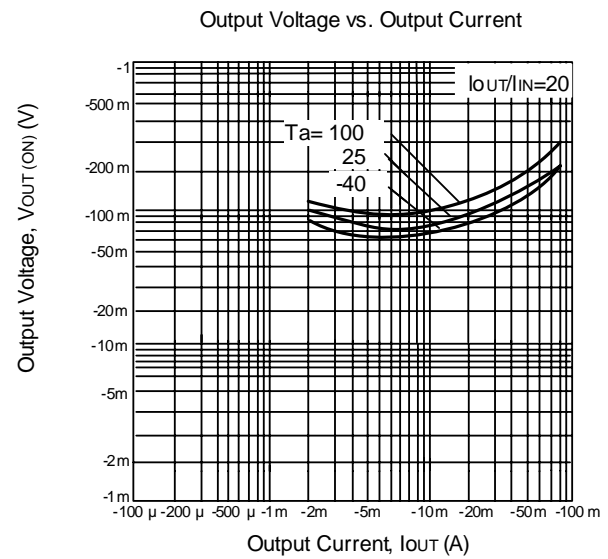
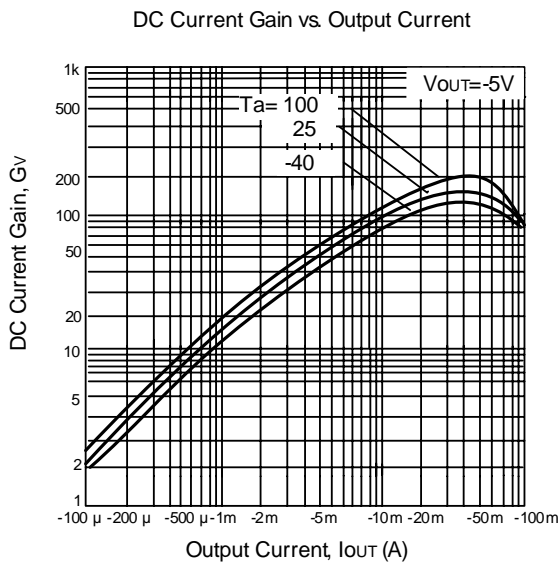
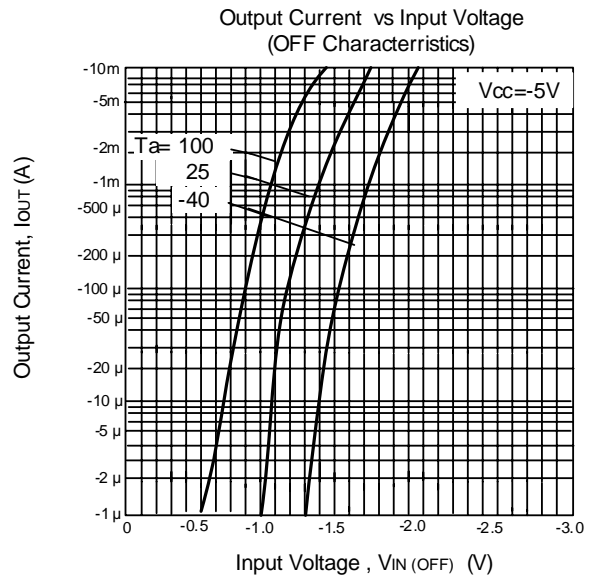
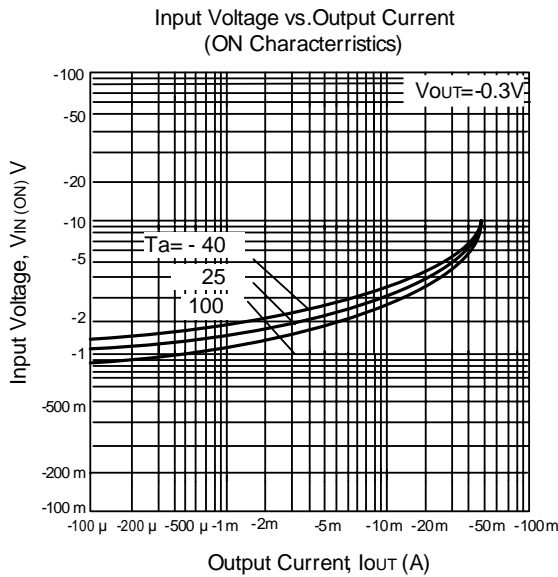
■ ABSOLUTE MAXIMUM RATINGS (Ta = 25 °C)

PARAMETER	SYMBOL	RATINGS	UNIT
Supply Voltage	V _{CC}	-50	V
Input Voltage	V _{IN}	-40 ~ +10	V
Output Current	I _{OUT(MAX)}	-100	mA
Power Dissipation	P _D	200	mW
Junction Temperature	T _J	150	
Storage Temperature	T _{STG}	-40 ~ +150	

■ 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 μA			-0.5	V
	V _{IN(ON)}	V _{OUT} = -0.3V, I _{OUT} = -10mA	-3			
Output Voltage	V _{OUT(ON)}	I _{OUT} /I _{IN} = -10mA/-0.5 mA			-0.3	V
Input Current	I _{IN}	V _{IN} = -5V			-0.88	mA
Output Current	I _{OUT(off)}	V _{CC} = -50V, V _{IN} =0V			-0.5	μA
DC Current Gain	G _V	V _{OUT} = -5V, I _{OUT} = -5mA	30			
Input Resistance	R ₁		7	10	13	k
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

TYPICAL CHARACTERISTICS



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