



DTA114Y

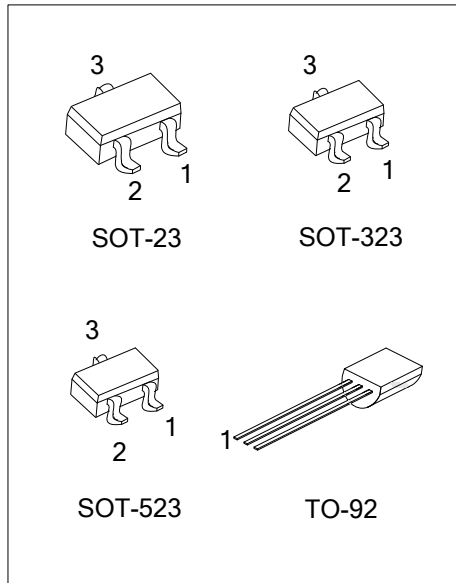
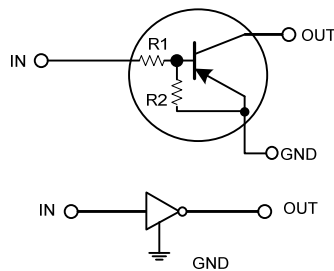
PNP SILICON TRANSISTOR

DIGITAL TRANSISTOR (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

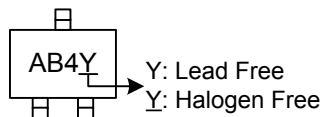


■ ORDERING INFORMATION

Ordering Number		Package	Pin Assignment			Packing
Lead Free Plating	Halogen Free		1	2	3	
DTA114YL-AE3-R	DTA114YG-AE3-R	SOT-23	G	I	O	Tape Reel
DTA114YL-AL3-R	DTA114YG-AL3-R	SOT-323	G	I	O	Tape Reel
DTA114YL-AN3-R	DTA114YG-AN3-R	SOT-523	G	I	O	Tape Reel
DTA114YL-T92-B	DTA114YG-T92-B	TO-92	G	O	I	Tape Box
DTA114YL-T92-K	DTA114YG-T92-K	TO-92	G	O	I	Bulk

<p>DTA114YL-AE3-R</p>	<p>(1) Packing Type</p> <p>(2) Package Type</p> <p>(3) Lead Free</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) G: Halogen Free, L: Lead Free</p>
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■ MARKING(For SOT Package)



■ ABSOLUTE MAXIMUM RATING

PARAMETER		SYMBOL	RATINGS	UNIT
Supply Voltage		V_{CC}	-50	V
Input Voltage		V_{IN}	-40~+6	V
Output Current		I_{OUT}	-70	mA
		$I_{C(MAX)}$	-100	mA
Power Dissipation	SOT-523	P_D	150	mW
	SOT-23/SOT-323		200	mW
	TO-92		625	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.

■ THERMAL DATA

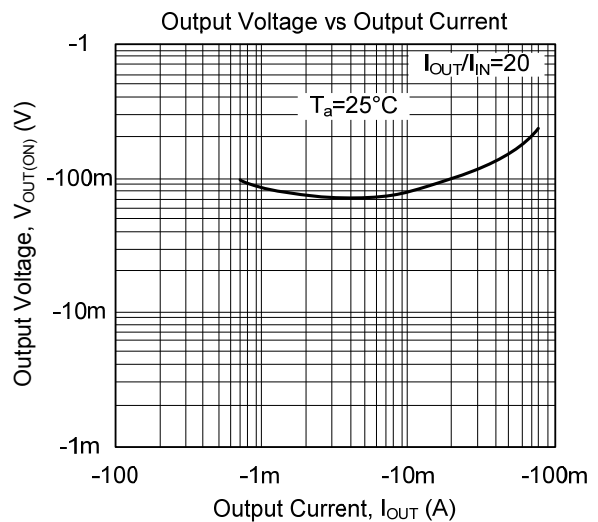
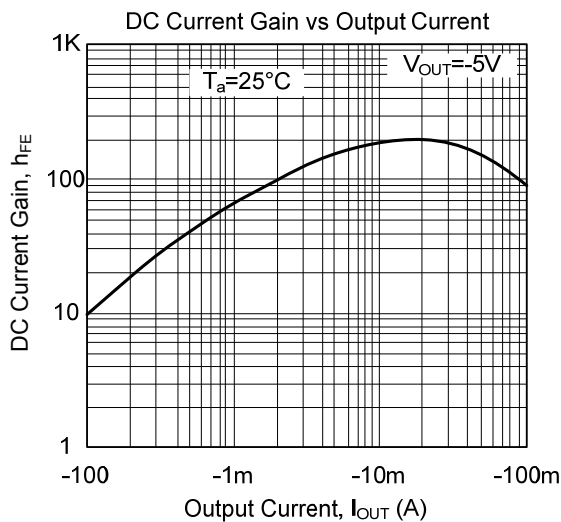
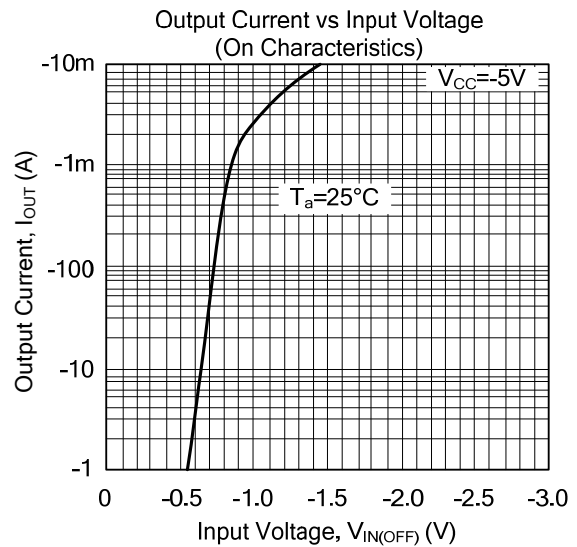
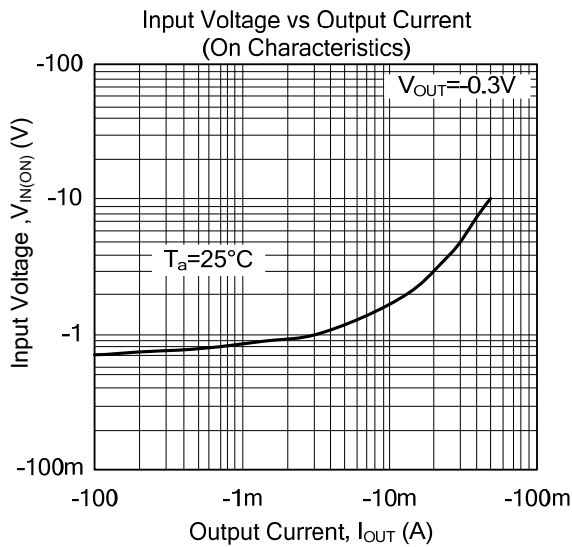
PARAMETER		SYMBOL	RATINGS	UNIT
Junction to Ambient	SOT-23	θ_{JA}	302	°C/W
	SOT-323		315	°C/W
	SOT-523		318	°C/W
	TO-92		183	°C/W
Junction to Case	SOT-23	θ_{JC}	145	°C/W
	SOT-323		143	°C/W
	SOT-523		130	°C/W
	TO-92		89	°C/W

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

PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Input Voltage	$V_{IN(OFF)}$	$V_{CC}=-5V, I_{OUT}=-100\mu A$			-0.3	V
	$V_{IN(ON)}$	$V_{OUT}=-0.3V, I_{OUT}=-1mA$	-1.4			V
Output Voltage	$V_{OUT(ON)}$	$I_{OUT}/I_{IN}=-5mA/-0.25mA$		-0.1	-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	h_{FE}	$V_{OUT}=-5V, I_{OUT}=-5mA$	68			
Input Resistance	R_1		7	10	13	K Ω
Resistance Ratio	R_2/R_1		3.7	4.7	5.7	
Transition Frequency	f_T	$V_{CE}=-10V, I_E=5mA, f=100MHz(\text{Note})$		250		MHz

Note: Transition frequency of the device

TYPICAL CHARACTERISTICS



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