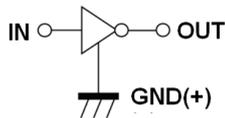
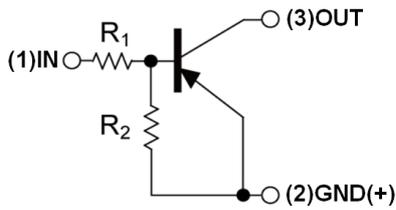
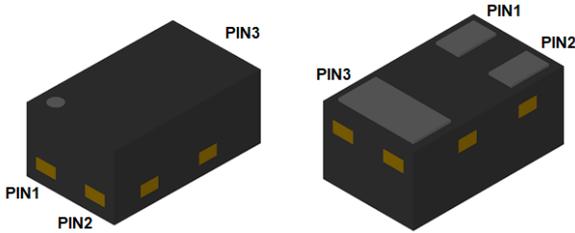


## PNP Digital Transistor (Built-in Resistors)



### Features

- Halogen free and RoHS compliant.
- Epoxy meets UL-94 V-0 flammability rating.
- Built-in bias resistors enable the configuration of an inverter circuit without connecting external input resistors.

### Mechanical data

- **Package:** DFN1006-3L
- **Terminals:** Tin plated leads, solderable per J-STD-002 and JESD22-B102

### ■ Maximum Ratings ( $T_a=25^\circ\text{C}$ Unless otherwise specified)

Item	Symbol	Unit	Conditions	Value
Device marking code				DE
Supply voltage	$V_{CC}$	V		-50
Input voltage	$V_{IN}$	V		-40 to +10
Output current	$I_o$	mA		-100
Power dissipation	$P_D$	mW		150
Operation junction temperature	$T_J$	$^\circ\text{C}$		-55 to +150
Storage temperature	$T_{STG}$	$^\circ\text{C}$		-55 to +150



# DTA114EL3

RoHS  
COMPLIANT

## ■ Electrical Characteristics (T<sub>a</sub>=25°C Unless otherwise specified)

Item	Symbol	Unit	Conditions	Min	Typ	Max
Input voltage	V <sub>I(OFF)</sub>	V	V <sub>CC</sub> =-5V, I <sub>O</sub> =-100uA	-0.5		
	V <sub>I(ON)</sub>	V	V <sub>O</sub> =-0.3V, I <sub>O</sub> =-10mA			-3.0
Output voltage	V <sub>O(ON)</sub>	V	I <sub>O</sub> /I <sub>I</sub> =-10mA/-0.5mA			-0.3
Input current	I <sub>I</sub>	mA	V <sub>I</sub> =-5V			-0.88
Output current	I <sub>O(OFF)</sub>	uA	V <sub>CC</sub> =-50V, V <sub>I</sub> =0			-0.5
DC current gain	G <sub>I</sub>		V <sub>O</sub> =-5V, I <sub>O</sub> =-5mA	30		
Input resistance	R <sub>1</sub>	kΩ		7	10	13
Resistance ratio	R <sub>2</sub> /R <sub>1</sub>			0.8	1	1.2
Transition frequency	f <sub>T</sub>	MHz	I <sub>O</sub> =-5mA, V <sub>O</sub> =-10V, f=100MHz		250	

## ■ Thermal Characteristics

Parameter	Symbol	Unit	Value
Thermal resistance, junction-to-ambient	R <sub>θJ-A</sub> <sup>(1)</sup>	°C/W	833

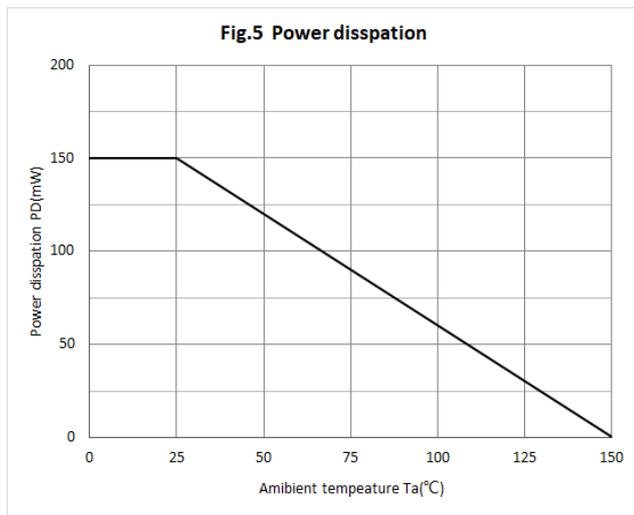
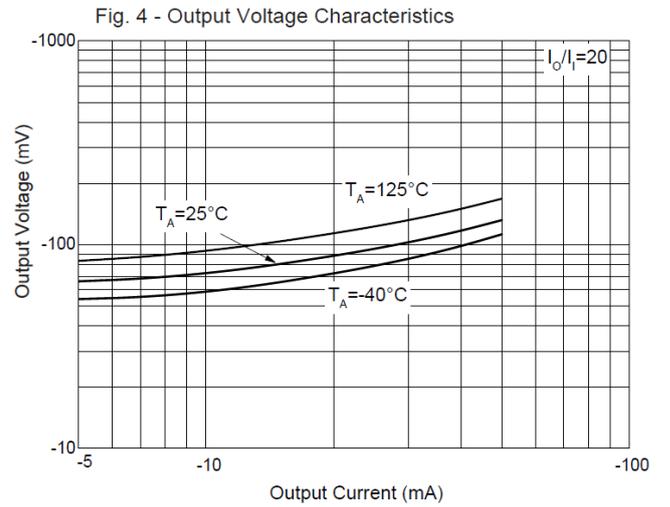
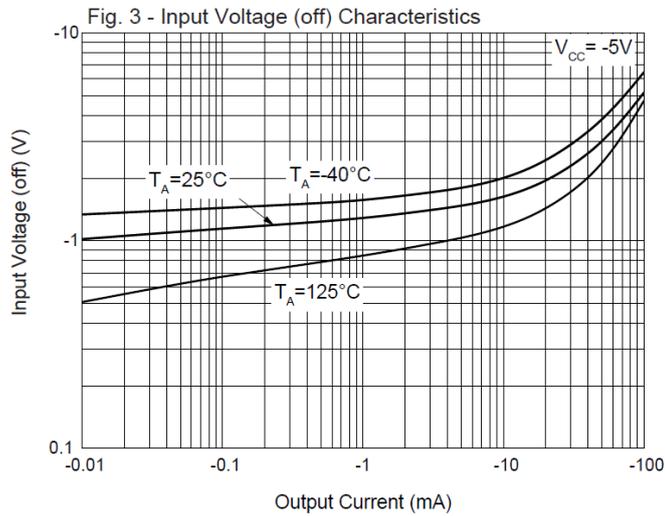
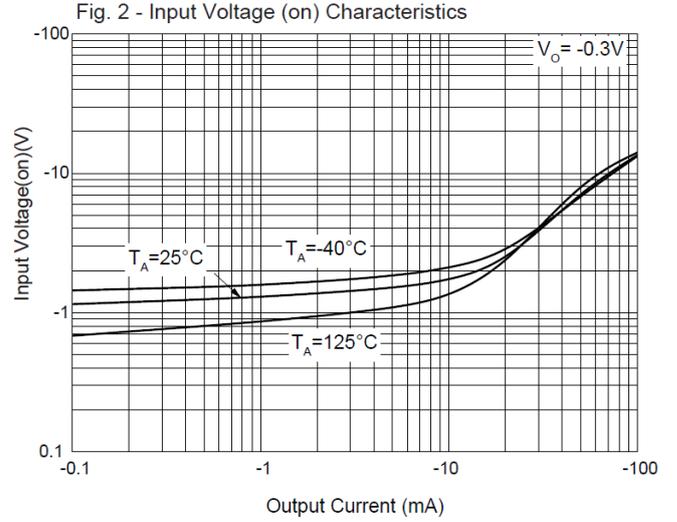
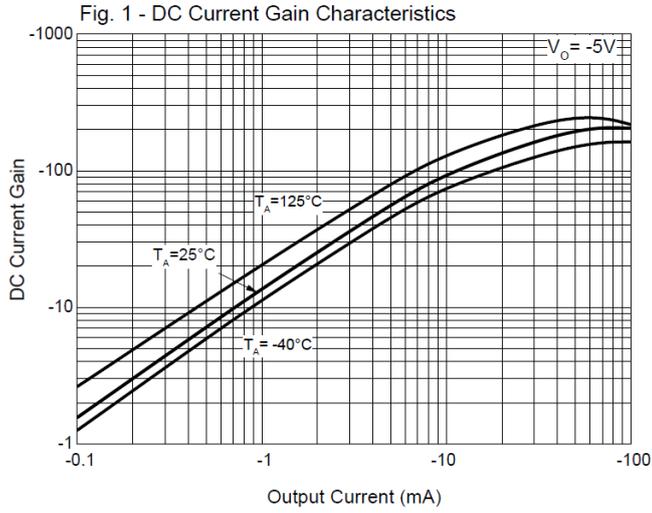
Note:1. Device mounted on an FR4 Printed-Circuit Board (PCB), single-sided copper, tin-plated and standard footprint.

## ■ Ordering Information

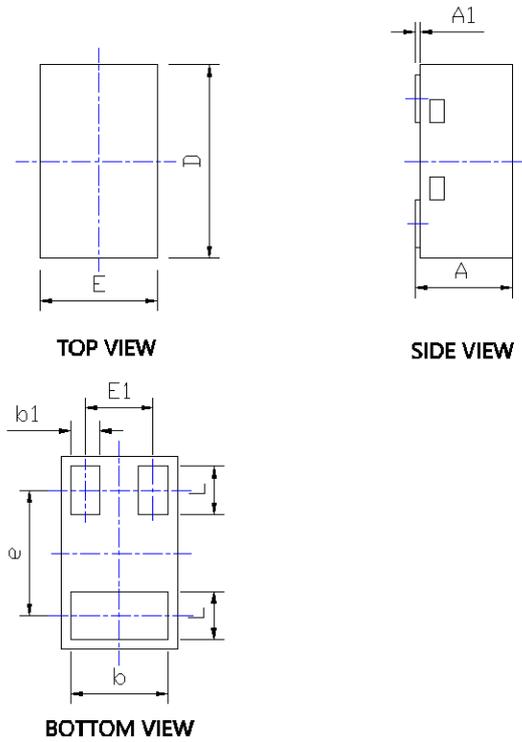
Preferred P/N	Packing code	Unit weight(mg)	Minimum package(pcs)	Inner box quantity(pcs)	Outer carton quantity(pcs)	Delivery mode
DTA114EL3	F1	Approximate 0.89	10000	100000	400000	Tape & Reel



## ■ Typical of Characteristics

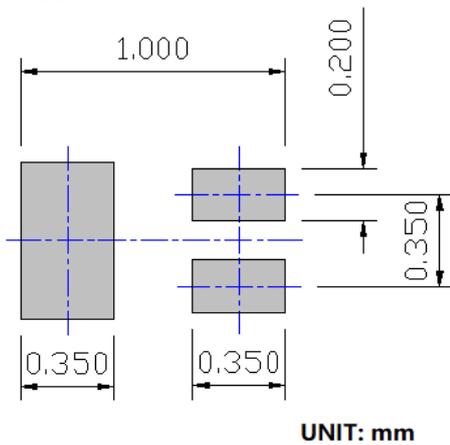


## ■ Outline Dimensions



DIMENSIONS			
SYMBOL	Millimeter		
	MIN.	NOM.	MAX.
A	0.42	---	0.55
A1	0.025REF		
b	0.45	0.50	0.55
b1	0.10	0.15	0.20
D	0.95	1.00	1.05
E	0.55	0.60	0.65
E1	0.35BSC		
e	0.65BSC		
L	0.20	0.25	0.30

## ■ Suggested Pad Layout





## DTA114EL3

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