

Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from, Europe, America and south Asia, supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of "Quality Parts, Customers Priority, Honest Operation, and Considerate Service", our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip, ALPS, ROHM, Xilinx, Pulse, ON, Everlight and Freescale. Main products comprise IC, Modules, Potentiometer, IC Socket, Relay, Connector. Our parts cover such applications as commercial, industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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**Micro Commercial Components** 



Micro Commercial Components 20736 Marilla Street Chatsworth CA 91311

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## DTA114TUA

## rtalurt5

- Lead Free Finish/RoHS Compliant ("P" Suffix designates RoHS Compliant. See ordering information)
- Epoxy meets UL 94 V-0 flammability rating
- Moisure Sensitivity Level 1
- Built-in bias resistors enable the configuration of an inverter circuit without connecting external input resistors (see equivalent circuit)
- The bias resistors consist of thin-film resistors with complete isolation to allow negative 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
- Halogen free available upon request by adding suffix "-HF"

**Absolute Maximum Ratings** 

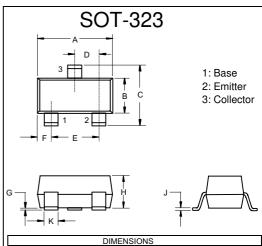
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Parameter	Symbol	Value	Unit		
Collector-Base Voltage	$V_{CBO}$	-50	V		
Collector-Emitter Voltage	$V_{CEO}$	-50	V		
Emitter-Base voltage	$V_{EBO}$	-5	V		
Collector Current-Continuous	Ic	-100	mA		
Collector Dissipation	Pc	200	mW		
Junction Temperature Range	TJ	-55~150	$^{\circ}\!\mathbb{C}$		
Storage Temperature Range	T <sub>STG</sub>	-55~150	$^{\circ}\mathbb{C}$		

#### **Electrical Characteristics**

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Sym	Parameter	Min	Тур	Max	Unit
$V_{(BR)CBO}$	Collector-Base Breakdown Voltage (I <sub>C</sub> =-50uA, I <sub>E</sub> =0)	-50			V
$V_{(BR)CEO}$	Collector-Emitter Breakdown Voltage (I <sub>C</sub> =-1mA, I <sub>B</sub> =0)	-50			V
$V_{(BR)EBO}$	Emitter-Base Breakdown Voltage (I <sub>E</sub> =-50uA, I <sub>C</sub> =0)	-5			V
I <sub>CBO</sub>	Collector Cut-off Current $(V_{CB}=-50V, I_E=0)$			-0.5	uA
I <sub>EBO</sub>	Emitter Cut-off Current (V <sub>EB</sub> =-4V, I <sub>C</sub> =0)			-0.5	uA
h <sub>FE</sub>	DC Current Gain (V <sub>CE</sub> =-5V, I <sub>C</sub> =-1mA)	100	250	600	
$V_{\text{CE(sat)}}$	Collector-Emitter Saturation Voltage (I <sub>C</sub> =-10mA, I <sub>B</sub> =-1mA)			-0.3	V
R₁	Input Resistor	7	10	13	ΚΩ
f <sub>T</sub>	Transition Frequency (V <sub>CE</sub> =-10V, I <sub>C</sub> =-5mA, f=100MHz)		250		MHz

<sup>\*</sup>Marking: 94

# **PNP Digital Transistor**



DIMENSIONS						
	INCHES		MM			
DIM	MIN	MAX	MIN	MAX	NOTE	
Α	.071	.087	1.80	2.20		
В	.045	.053	1.15	1.35		
С	.079	.087	2.00	2.20		
D	.026 No	ominal	0.65Nom	inal		
Е	.047	.055	1.20	1.40		
F	.012	.016	.30	.40		
Ð	.000	.004	.000	.100		
I	.035	.039	.90	1.00		
٦	.004	.010	.100	.250		
K	.012	.016	.30	.40		
Suggested Solder						

Pad Layout

0.70

0.90

1.90 mm

# DTA114TUA



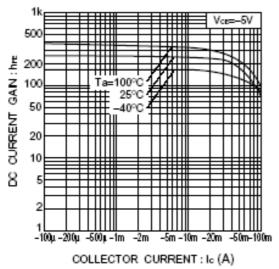


Fig.1 DC current gain vs. collector current

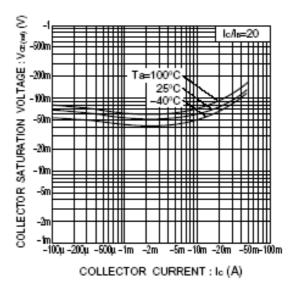
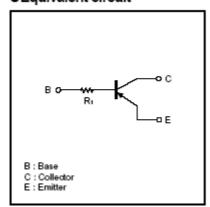


Fig.2 Collector-emitter saturation voltage vs. collector current

### ●Equivalent circuit



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#### **Micro Commercial Components**

### **Ordering Information:**

Device	Packing
Part Number-TP	Tape&Reel 3 Kpcs/Reel

Note: Adding "-HF" suffix for halogen free, eg. Part Number-TP-HF

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