



Micro Commercial Components



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# DTA114TE

## Features

- Lead Free Finish/RoHS Compliant ("P" Suffix designates RoHS Compliant. See ordering information)
- Epoxy meets UL 94 V-0 flammability rating
- Moisture 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

## Absolute Maximum Ratings

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	$I_C$	-100	mA
Collector Dissipation	$P_C$	150	mW
Junction Temperature Range	$T_J$	-55~150	°C
Storage Temperature Range	$T_{STG}$	-55~150	°C

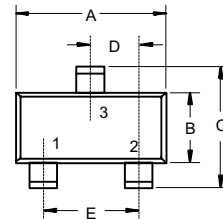
## Electrical Characteristics

Sym	Parameter	Min	Typ	Max	Unit
$V_{(BR)CBO}$	Collector-Base Breakdown Voltage ( $I_C=-50\mu A, I_E=0$ )	-50	---	---	V
$V_{(BR)CEO}$	Collector-Emitter Breakdown Voltage ( $I_C=-1mA, I_B=0$ )	-50	---	---	V
$V_{(BR)EBO}$	Emitter-Base Breakdown Voltage ( $I_E=-50\mu A, I_C=0$ )	-5	---	---	V
$I_{CBO}$	Collector Cut-off Current ( $V_{CB}=-50V, I_E=0$ )	---	---	-0.5	uA
$I_{EBO}$	Emitter Cut-off Current ( $V_{EB}=-4V, I_C=0$ )	---	---	-0.5	uA
$h_{FE}$	DC Current Gain ( $V_{CE}=-5V, I_C=-1mA$ )	100	250	600	---
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage ( $I_C=-10mA, I_B=-1mA$ )	---	---	-0.3	V
$R_1$	Input Resistor	7	10	13	K $\Omega$
$f_T$	Transition Frequency ( $V_{CE}=-10V, I_C=-5mA, f=100MHz$ )	---	250	---	MHz

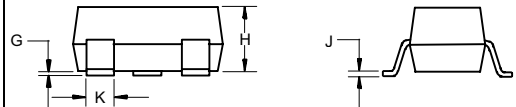
\*Marking: 94

## PNP Digital Transistor

### SOT-523



1. Base  
 2. Emitter  
 3. Collector



DIM	DIMENSIONS				NOTE
	INCHES		MM		
A	.059	.067	1.50	1.70	
B	.030	.033	0.75	0.85	
C	.057	.069	1.45	1.75	
D	.020 Nominal		0.50Nominal		
E	.035	.043	0.90	1.10	
G	.000	.004	.000	.100	
H	.028	.031	.70	0.80	
J	.004	.008	.100	.200	
K	.010	.014	.25	.35	

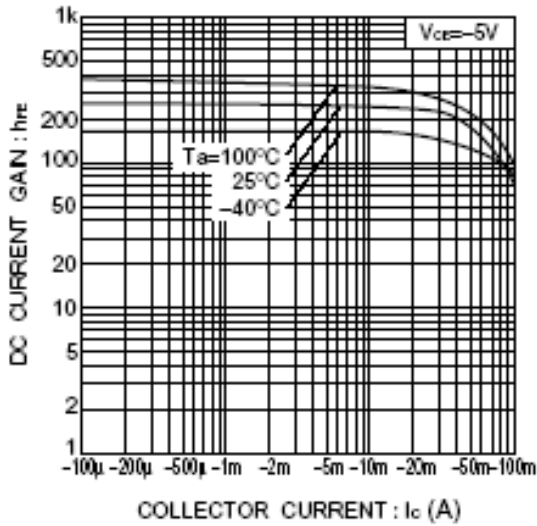


Fig.1 DC current gain vs. collector current

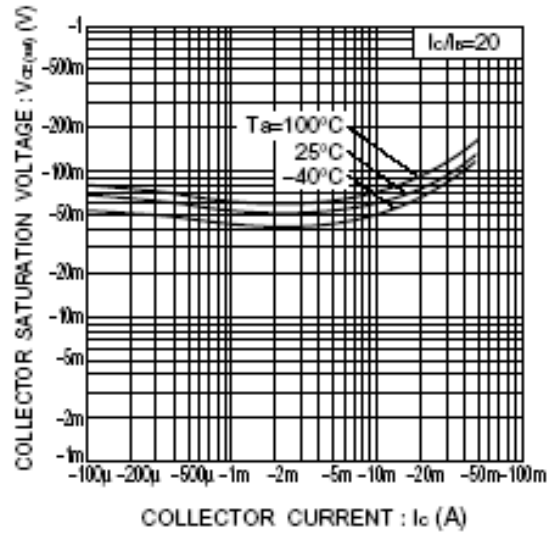
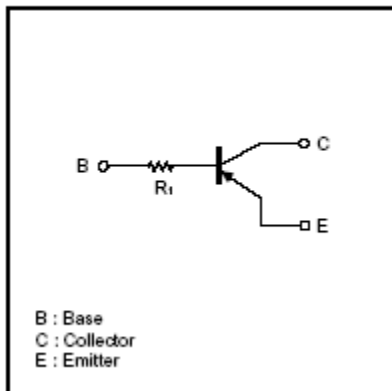


Fig.2 Collector-emitter saturation voltage vs. collector current

●Equivalent circuit





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### Ordering Information :

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

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