



Micro Commercial Components



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## 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	$P_C$	200	mW
Junction Temperature Range	$T_J$	-55~150	°C
Storage Temperature Range	$T_{STG}$	-55~150	°C

## Electrical Characteristics

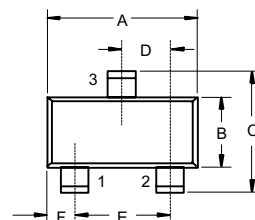
Sym	Parameter	Min	Typ	Max	Unit
$V_{(BR)CBO}$	Collector-Base Breakdown Voltage ( $I_C=-50\mu A$ , $I_E=0$ )	-50	---	---	V
$V_{(BR)CEO}$	Collector-Emitter Breakdown Voltage ( $I_C=-1mA$ , $I_B=0$ )	-50	---	---	V
$V_{(BR)EBO}$	Emitter-Base Breakdown Voltage ( $I_E=-50\mu A$ , $I_C=0$ )	-5	---	---	V
$I_{CBO}$	Collector Cut-off Current ( $V_{CB}=-50V$ , $I_E=0$ )	---	---	-0.5	$\mu A$
$I_{EBO}$	Emitter Cut-off Current ( $V_{EB}=-4V$ , $I_C=0$ )	---	---	-0.5	$\mu A$
$h_{FE}$	DC Current Gain ( $V_{CE}=-5V$ , $I_C=-1mA$ )	68	---	---	
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage ( $I_C=-10mA$ , $I_B=-1mA$ )	---	---	-0.3	V
$R_1$	Input Resistor	7	10	13	K $\Omega$
$R_2/R_1$	Resistance ratio	3.7	4.7	5.7	
$f_T$	Transition Frequency ( $V_{CE}=-10V$ , $I_C=-5mA$ , $f=100MHz$ )	---	250	---	MHz

\*Marking: 94

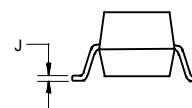
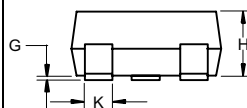
## DTA114YUA

## PNP Digital Transistor

### SOT-323

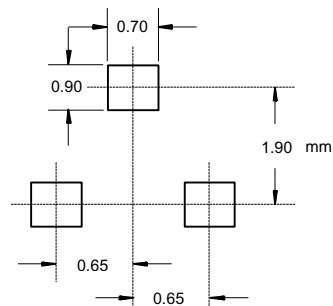


1: Base  
2: Emitter  
3: Collector



DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	.071	.087	1.80	2.20	
B	.045	.053	1.15	1.35	
C	.079	.087	2.00	2.20	
D	.026 Nominal		0.65Nominal		
E	.047	.055	1.20	1.40	
F	.012	.016	.30	.40	
G	.000	.004	.000	.100	
H	.035	.039	.90	1.00	
J	.004	.010	.100	.250	
K	.012	.016	.30	.40	

### Suggested Solder Pad Layout



## ●Electrical characteristic curves

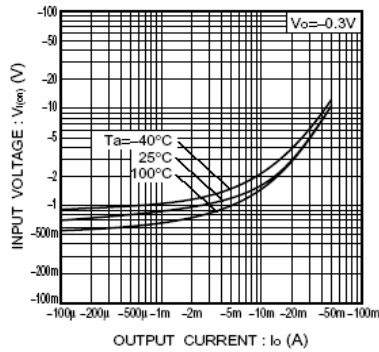


Fig.1 Input voltage vs. output current (ON characteristics)

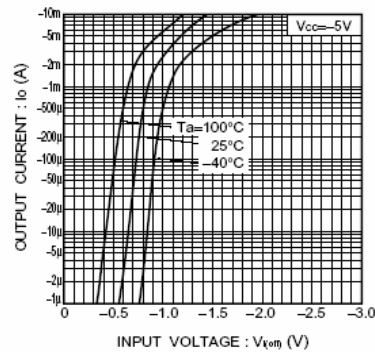


Fig.2 Output current vs. input voltage (OFF characteristics)

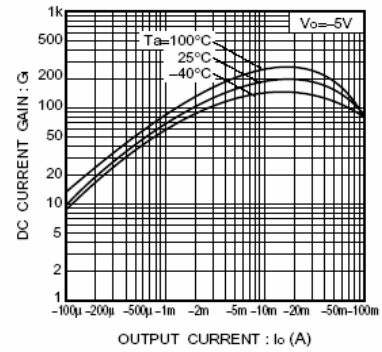


Fig.3 DC current gain vs. output current

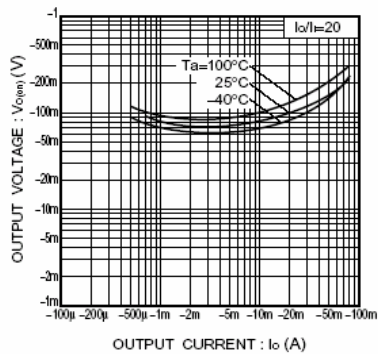
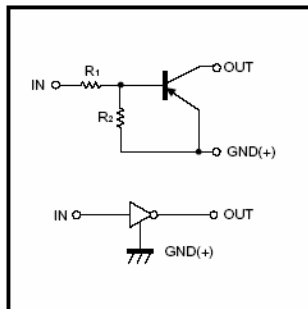


Fig.4 Output voltage vs. output current

## ●Equivalent circuit



## Ordering Information :

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

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