



Micro Commercial Components



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# DTC113ZUA

## Features

- Lead Free Finish/RoHS Compliant ("P" Suffix designates RoHS Compliant. See ordering information)
- Epitaxial Planar Die Construction
- Complementary NPN Types Available
- Built-In Biasing Resistors
- Epoxy meets UL 94 V-0 flammability rating
- Moisture Sensitivity Level 1
- Marking: E21
- Halogen free available upon request by adding suffix "-HF"

## Absolute maximum ratings @ 25°C

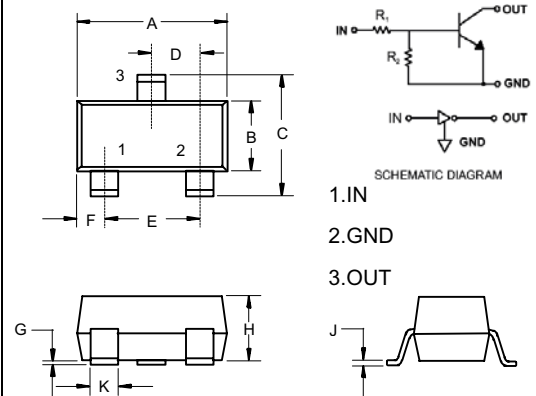
Symbol	Parameter	Min	Typ	Max	Unit
$I_C$	Collector current	---	100	---	mA
$V_{IN}$	Input voltage	-5	---	+10	V
$P_d$	Power dissipation	---	200	---	mW
$T_j$	Junction temperature	---	150	---	°C
$T_{stg}$	Storage temperature	-55	---	150	°C

## Electrical Characteristics @ 25°C

Symbol	Parameter	Min	Typ	Max	Unit
$V_{I(off)}$	Input voltage ( $V_{CC}=5V, I_o=100 \mu A$ )	---	---	0.3	V
$V_{I(on)}$	Input voltage ( $V_o=0.3V, I_o=20mA$ )	3.0	---	---	V
$V_{O(on)}$	Output voltage ( $I_o=10mA, I_i=0.5mA$ )	---	---	0.3	V
$I_i$	Input current ( $V_i=5V$ )	---	---	7.2	mA
$I_{o(off)}$	Output current ( $V_{CC}=50V, V_i=0$ )	---	---	0.5	$\mu A$
$G_1$	DC current gain ( $V_o=5V, I_o=5mA$ )	33	---	---	
$R_1$	Input resistance	0.7	1.0	1.3	K $\Omega$
$R_2/R_1$	Resistance ratio	8	10	12	
$f_T$	Transition frequency ( $V_{CE}=10V, I_E=5mA, f=100MHz$ )	---	250	---	MHz

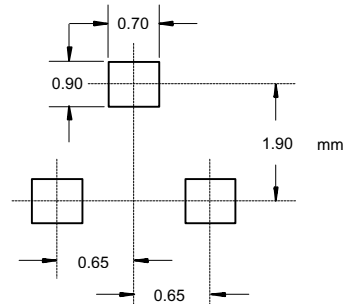
## Digital Transistors

### SOT-323



DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	.071	.087	1.80	2.20	
B	.045	.053	1.15	1.35	
C	.083	.096	2.10	2.45	
D	.026 Nominal		0.65 Nominal		
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	.006	.016	.15	.40	

### Suggested Solder Pad Layout





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### Ordering Information :

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

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

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