



Micro Commercial Components



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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

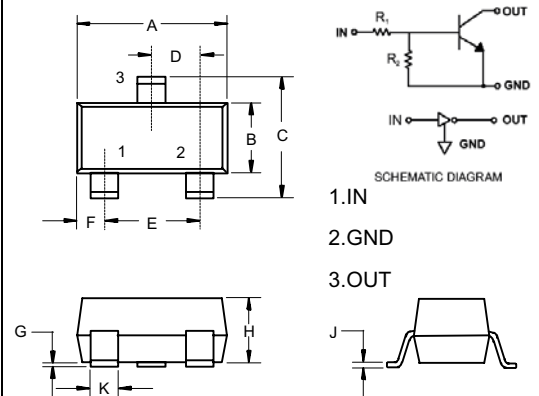
Electrical Characteristics @ 25°C

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	μA
G_i	DC current gain ($V_O=5V$, $I_O=5mA$)	33	---	---	---
R_1	Input resistance	0.7	1.0	1.3	K Ω
R_2/R_1	Resistance ratio	8	10	12	---
f_T	Transition frequency ($V_{CE}=10V$, $I_E=5mA$, $f=100MHz$)	---	250	---	MHz

DTC113ZUA

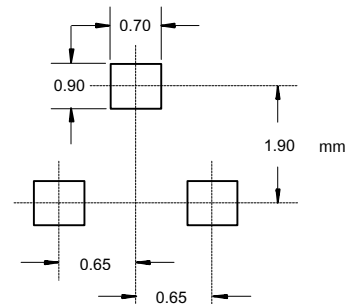
Digital Transistors

SOT-323



DIMENSIONS					
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	.012	.016	.30	.40	

Suggested Solder Pad Layout



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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