



Micro Commercial Components

Micro Commercial Components
20736 Marilla Street Chatsworth
CA 91311
Phone: (818) 701-4933
Fax: (818) 701-4939

DTC114YUA

Features

- Case Material: Molded Plastic. UL Flammability Classification Rating 94V-0 and MSL Rating 1
- Built-in bias resistors enable the configuration of an inverter circuit without connecting external input resistors
- 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

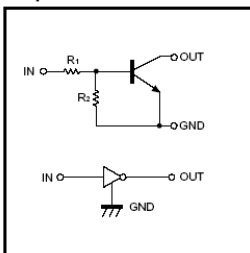
Absolute maximum ratings @ 25°C

Symbol	Parameter	Min	Typ	Max	Unit
V_{CC}	Supply voltage	---	50	---	V
V_{IN}	Input voltage	-6	---	40	V
I_O	Output current	---	70	---	mA
$I_{C(MAX)}$		---	100	---	
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
$V_{I(on)}$	($V_O=0.3V$, $I_O=1mA$)	1.4	---	---	V
$V_{O(on)}$	Output voltage ($I_O/I_I=5mA/0.25mA$)	---	0.1	0.3	V
I_I	Input current ($V_I=5V$)	---	---	0.88	mA
$I_{O(off)}$	Output current ($V_{CC}=50V$, $V_I=0$)	---	---	0.5	μA
G_I	DC current gain ($V_O=5V$, $I_O=5mA$)	68	---	---	
R_I	Input resistance	7.0	10	13	K Ω
R_2/R_1	Resistance ratio	3.7	4.7	5.7	
f_T	Transition frequency ($V_{CE}=10V$, $I_E=5mA$, $f=100MHz$)	---	250	---	MHz

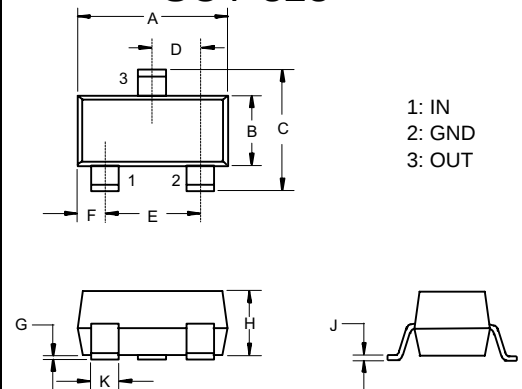
Equivalent circuit



*Marking: 64

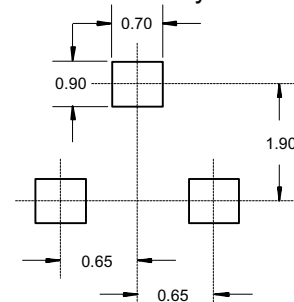
NPN Digital Transistors

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	.079	.087	2.00	2.20	
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

IMPORTANT NOTICE

Micro Commercial Components Corp. reserves the right to make changes without further notice to any product herein to make corrections, modifications , enhancements , improvements , or other changes .
Micro Commercial Components Corp. does not assume any liability arising out of the application or use of any product described herein; neither does it convey any license under its patent rights ,nor the rights of others . The user of products in such applications shall assume all risks of such use and will agree to hold *Micro Commercial Components Corp.* and all the companies whose products are represented on our website, harmless against all damages.

APPLICATIONS DISCLAIMER

Products offer by *Micro Commercial Components Corp.* are not intended for use in Medical, Aerospace or Military Applications.