



Micro Commercial Components

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DTC124EUA

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

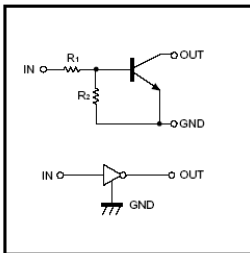
Absolute maximum ratings @ 25°C

Symbol	Parameter	Min	Typ	Max	Unit
V _{CC}	Supply voltage	---	50	---	V
V _{IN}	Input voltage	-10	---	40	V
I _O	Output current	---	30	---	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

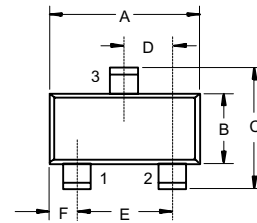
Symbol	Parameter	Min	Typ	Max	Unit
V _{I(off)}	Input voltage (V _{CC} =5V, I _O =100 μ A)	---	---	0.5	V
V _{I(on)}	(V _O =0.2V, I _O =5mA)	3.0	---	---	V
V _{O(on)}	Output voltage (I _O /I _I =10mA/0.5mA)	---	0.1	0.3	V
I _I	Input current (V _I =5V)	---	---	0.36	mA
I _{O(off)}	Output current (V _{CC} =50V, V _I =0)	---	---	0.5	μ A
G _I	DC current gain (V _O =5V, I _O =5mA)	56	---	---	
R _I	Input resistance	15.4	22	28.6	K Ω
R ₂ /R ₁	Resistance ratio	0.8	1.0	1.2	
f _T	Transition frequency (V _{CE} =10V, I _E =5mA, f=100MHz)	---	250	---	MHz

Equivalent circuit

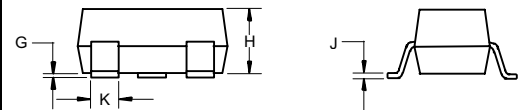


NPN Digital Transistors

SOT-323

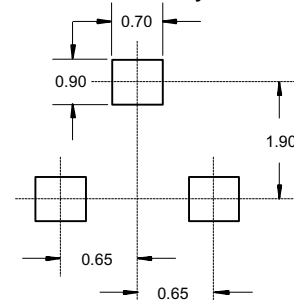


1: IN
 2: GND
 3: OUT



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





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Ordering Information

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

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