

PNP Digital Transistor

DTA114EUA

Features

- 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
- 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

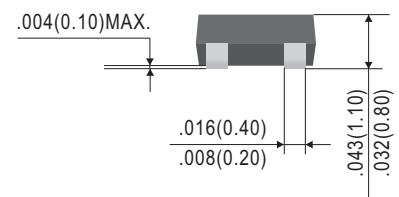
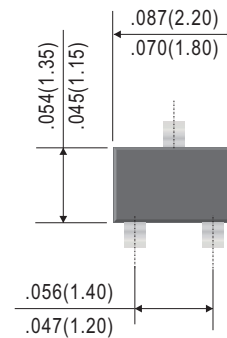
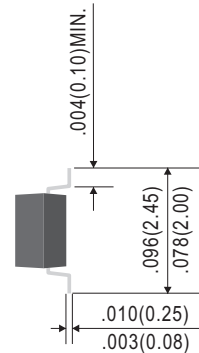
Absolute maximum ratings @ 25°C

Symbol	Parameter	Min	Typ	Max	Unit
V_{CC}	Supply voltage	---	-50	---	V
V_{IN}	Input voltage	-40	---	10	V
I_o $I_{C(MAX)}$	Output current	---	-50 -100	---	mA
P_d	Power dissipation	---	200	---	mW
T_j	Junction temperature	---	150	---	°C
T_{stg}	Storage temperature	-55	---	150	°C

Electrical Characteristics @ 25°C

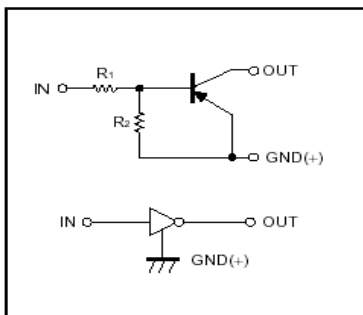
Symbol	Parameter	Min	Typ	Max	Unit
$V_{I(off)}$	Input voltage ($V_{CC}=-5V, I_o=-100\mu A$) ($V_o=-0.3V, I_o=-10mA$)	-0.5	---	---	V
$V_{I(on)}$		---	---	-3.0	V
$V_{O(on)}$	Output voltage ($I_o/I_i=-10mA/-0.5mA$)	---	---	-0.3	V
I_i	Input current ($V_i=-5V$)	---	---	-0.88	mA
$I_{O(off)}$	Output current ($V_{CC}=-50V, V_i=0$)	---	---	-0.5	μA
G_I	DC current gain ($V_o=-5V, I_o=-5mA$)	30	---	---	
R_1	Input resistance	7.0	10	13	K Ω
R_2/R_1	Resistance ratio	0.8	1.0	1.2	
f_T	Transition frequency ($V_o=-10V, I_o=5mA, f=100MHz$)	---	250	---	MHz

SOT-323



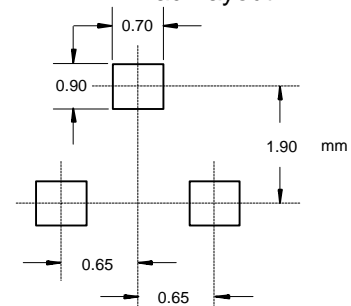
Dimensions in inches and (millimeters)

Equivalent circuit



MARKING: 14

Suggested Solder Pad Layout



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Typical Characteristics

