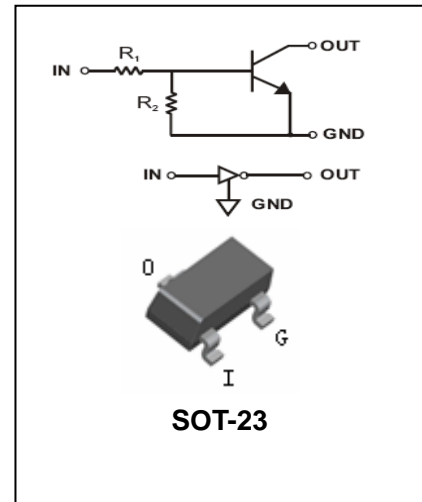


Digital Transistor

DTA124ECA

FEATURES

- Built-in bias resistor 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.



APPLICATIONS

- The PNP style digital transistor.

ORDERING INFORMATION

Type No.	Marking	Package Code
DTA124ECA	15	SOT-23

MAXIMUM RATING @ Ta=25°C unless otherwise specified

Symbol	Parameter	Value	Units
V _{CC}	Supply Voltage	-50	V
V _{IN}	Input Voltage	-40 to 10	V
I _O	Output Current	-30	mA
P _D	Power Dissipation	200	mW
R _{θJA}	Thermal Resistance, Junction to Ambient Air	833	°C/W
T _J , T _{stg}	Operating and Storage and Temperature Range	-55 to +150	°C

ELECTRICAL CHARACTERISTICS @ Ta=25°C unless otherwise specified

Digital Transistor

DTA124ECA

Parameter	Symbol	Test conditions	MIN	TYP	MAX	UNIT
Input Voltage	$V_{I(off)}$	$V_{CC}=-5V, I_O=-100\mu A$	-	-	-0.5	V
	$V_{I(on)}$	$V_O=-0.2V, I_O=-5mA$	-3	-	-	
Output Voltage	$V_{O(on)}$	$I_O/I_I=-10mA/-0.5mA,$	-	-	-0.3	V
Input Current	I_I	$V_I=-5V$	-	-	-0.36	mA
Output Current	$I_{O(off)}$	$V_{CC}=-50V, V_I=0V$	-	-	-0.5	μA
DC Current Gain	G_I	$V_O=-5V, I_O=-5mA$	56	-	-	
Input Resistor (R_1) Tolerance	R_1	-	15.4	22	28.6	K Ω
Resistance Ratio	R_2/R_1	-	0.8	1	1.2	
Gain-Bandwidth Product	f_T	$V_{CE}=-10V, I_E=5mA,$ $f=100MHz$	-	250	-	MHz

PACKAGE OUTLINE

Plastic surface mounted package

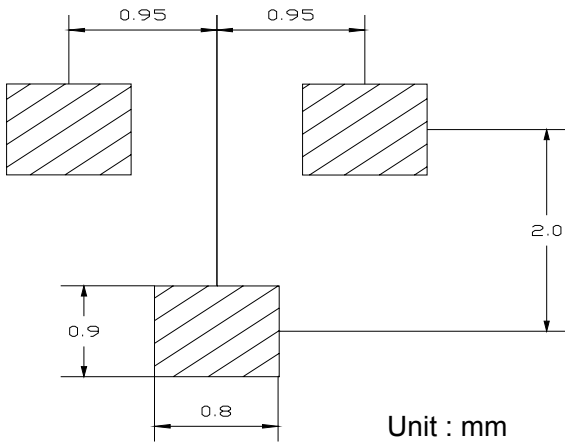
SOT-23

SOT-23		
Dim	Min	Max
A	2.85	2.95
B	1.25	1.35
C	1.0Typical	
D	0.37	0.43
E	0.35	0.48
G	1.85	1.95
H	0.02	0.1
J	0.1Typical	
K	2.35	2.45
All Dimensions in mm		

SOLDERING FOOTPRINT

Digital Transistor

DTA124ECA



PACKAGE INFORMATION

Device	Package	Shipping
DTA124ECA	SOT-23	3000/Tape&Reel