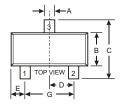


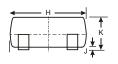
DTC144ECA

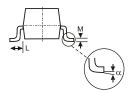
NPN SILICON EPITAXIAL PLANAR DIGITAL TRANSISTOR

Features

- Built-in bias resistors enable the configuration of an inverter circuit without connecting external input resistors(see equivalent circuit)
- 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
- Marking Code:26







501-23						
Dim	Min	Max				
Α	0.37	0.51				
В	1.20	1.40				
С	2.30	2.50				
D	0.89	1.03				
E	0.45	0.60				
G	1.78	2.05				
Н	2.80	3.00				
J	0.013	0.10				
K	0.903	1.10				
L	0.45	0.61				
M	0.085	0.180				
α	0°	8°				
All Dimensions in mm						

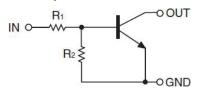
1. IN

COT 22

Maximum Ratings @ T_A = 25°C unless otherwise specified

Symbol	Parameter	Limits	Unit
Vcc	Supply Voltage	50	V
V _{IN}	Input Voltage	-10~+40	V
lo	Output Current	30	mA
I _{CM}	Peak Collector Current	100	mA
P _D	Power Dissipation	200	mW
Tj	Junction Temperature	150	°C
T _{stg}	Storage Temperature	-55~+150	℃

Equivalent Circuit



IN O OUT 2. GND 3. OUT

Electrical Characteristics @ T_A = 25°C unless otherwise specified

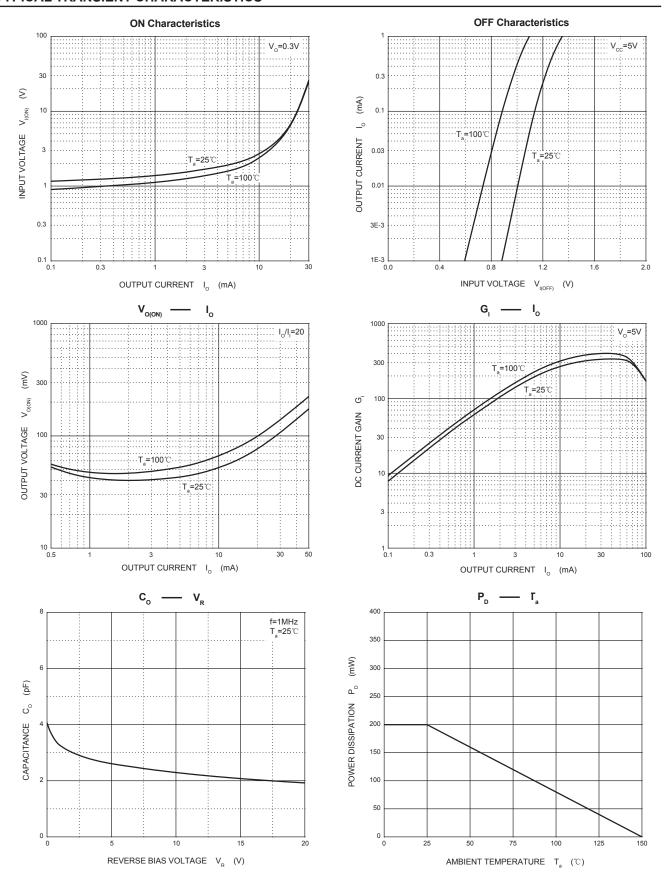
Parameter	Symbol	Conditions	Min	Тур	Max	Unit
Input voltage	$V_{I(off)}$	V _{CC} =5V,I _O =100μA	0.5			V
	V _{I(on)}	V _O =0.3V,I _O =2mA			3	V
Output voltage	$V_{O(on)}$	I _O /I _I =10mA/0.5mA			0.3	V
Input current	Ιį	V _I =5V			0.18	mA
Output current	I _{O(off)}	V _{CC} =50V,V _I =0			0.5	μΑ
DC current gain	Gı	Vo=5V,Io=5mA	68			
Input resistance	R ₁		32.9	47	61.1	kΩ
Resistance ratio	R ₂ /R ₁		0.8	1	1.2	
Transition frequency	f _T	V _O =10V,I _O =5mA,f=100MHz		250		MHz



DTC144ECA

NPN SILICON EPITAXIAL PLANAR DIGITAL TRANSISTOR

TYPICAL TRANSIENT CHARACTERISTICS





DTC144ECA

NPN SILICON EPITAXIAL PLANAR DIGITAL TRANSISTOR

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