

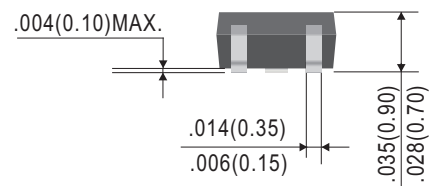
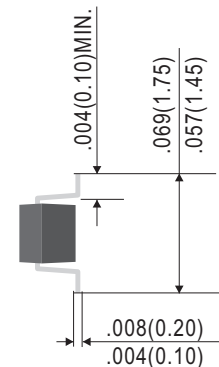
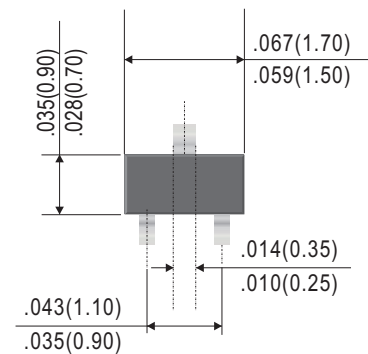
PNP Digital Transistor

DTA143EE

Features

- **Pb-Free package is available**
RoHS product for packing code suffix "G"
- Halogen free product for packing code suffix "H"
- 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

SOT-523



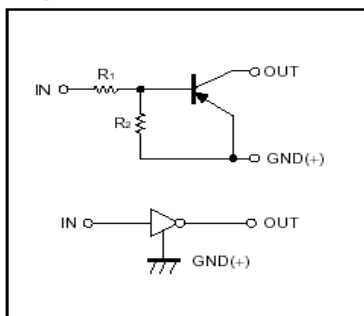
Absolute maximum ratings @ 25°C

Symbol	Parameter	Min	Typ	Max	Unit
V_{CC}	Supply voltage	---	-50	---	V
V_{IN}	Input voltage	-30	---	10	V
I_O	Output current	---	-100	---	mA
$I_{C(MAX)}$	Output current	---	-100	---	mA
P_d	Power dissipation	---	150	---	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 ($V_{CC}=-5V, I_O=-100 \mu A$)	-0.5	---	---	V
$V_{I(on)}$	Input voltage ($V_O=-0.3V, I_O=-20mA$)	---	---	-3.0	V
$V_{O(on)}$	Output voltage ($I_O/I_I=-10mA/-0.5mA$)	---	---	-0.3	V
I_I	Input current ($V_I=-5V$)	---	---	-1.8	mA
$I_{O(off)}$	Output current ($V_{CC}=-50V, V_I=0$)	---	---	-0.5	μA
G_I	DC current gain ($V_O=-5V, I_O=-10mA$)	30	---	---	
R_1	Input resistance	3.29	4.7	6.11	$K \Omega$
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

Equivalent circuit



*Marking: 13 or 43

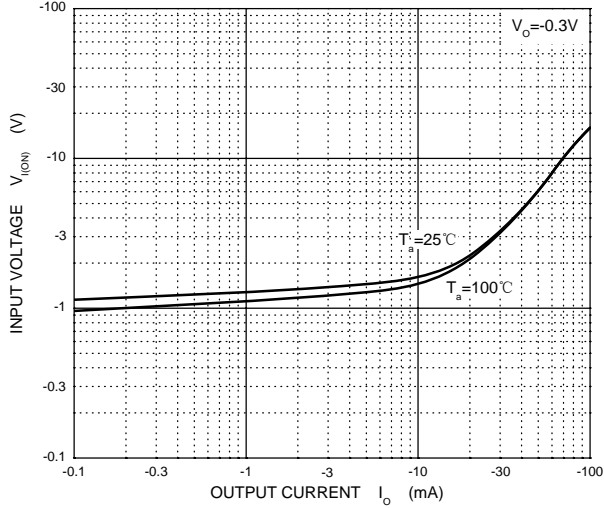
Dimensions in inches and (millimeters)



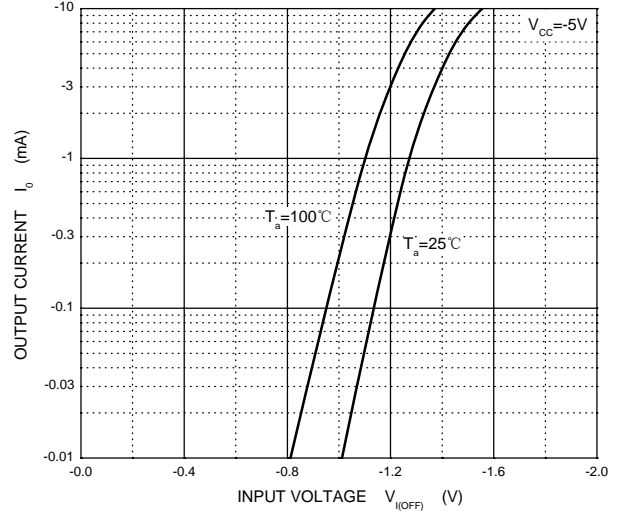
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Typical Characteristics

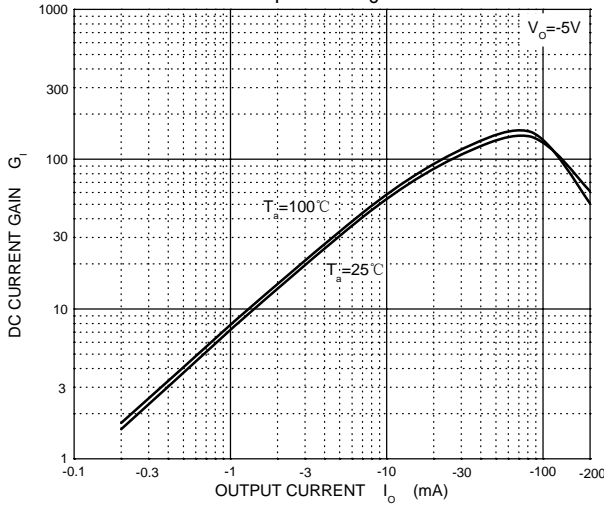
ON Characteristics



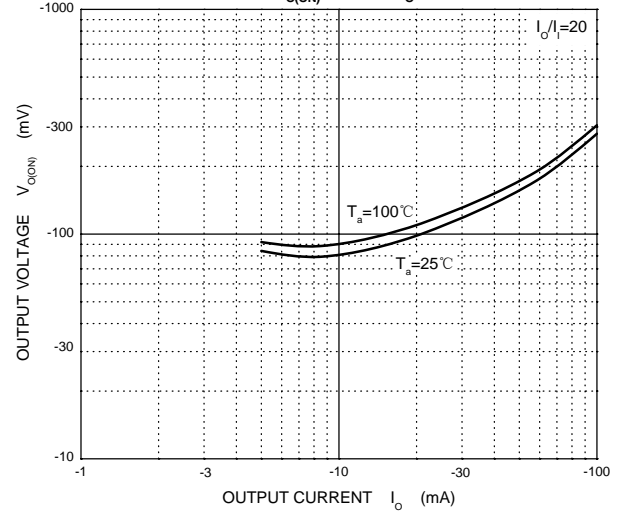
OFF Characteristics



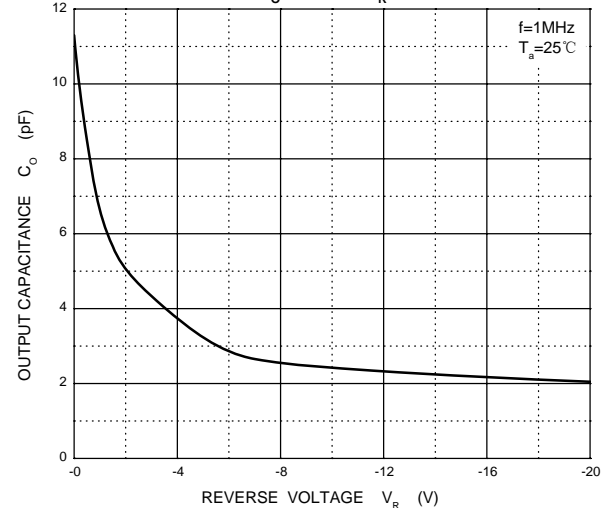
$G_i - I_o$



$V_{o(ON)} - I_o$



$C_o - V_R$



$P_D - T_a$

