

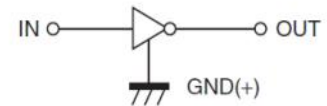
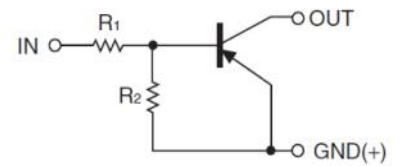


Digital Transistors (Built-in Resistors)

DIGITAL TRANSISTOR (PNP)

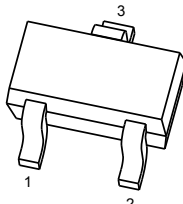
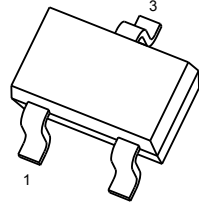
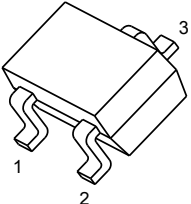
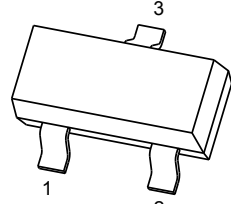
FEATURES

- 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 positive 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 : 13

PIN CONNENCTIONS and MARKING

DTA143EE 	SOT-523 1. IN 2. GND 3. OUT	DTA143EUA 	SOT-323 1. IN 2. GND 3. OUT
DTA143EKA 	SOT-23-3L 1. IN 2. GND 3. OUT	DTA143ECA 	SOT-23 1. IN 2. GND 3. OUT



MAXIMUM RATINGS(Ta=25°C unless otherwise noted)

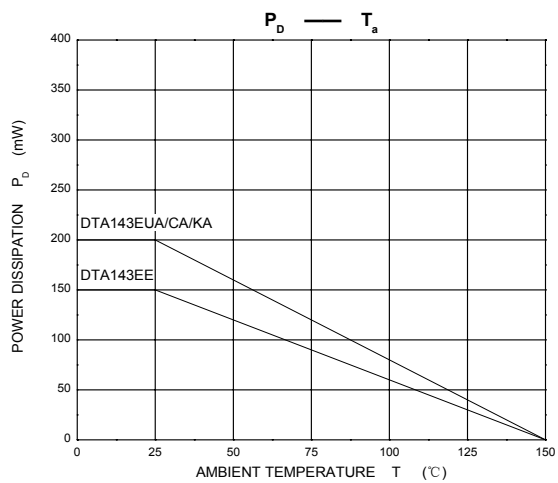
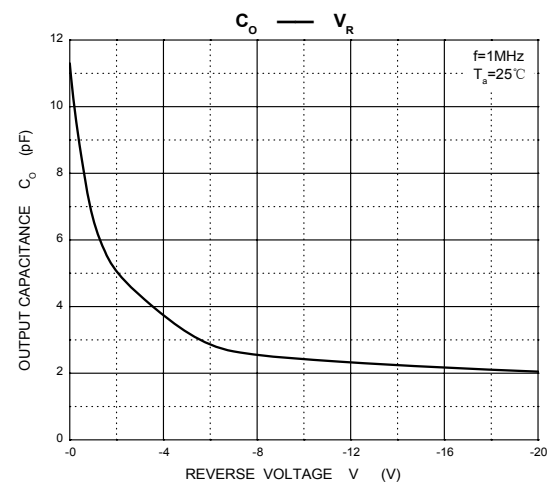
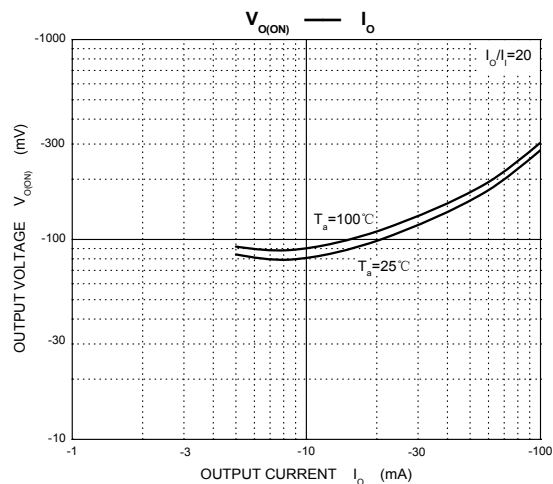
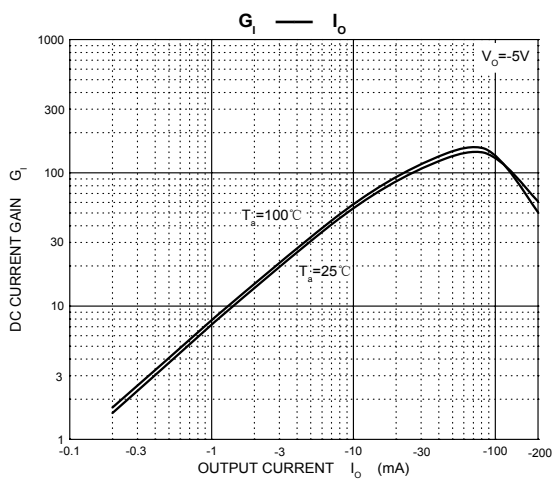
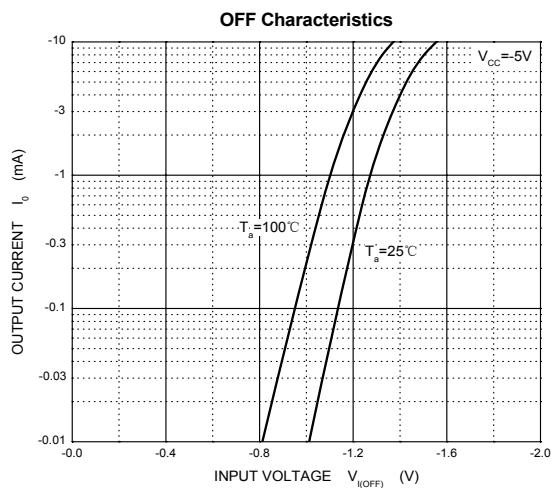
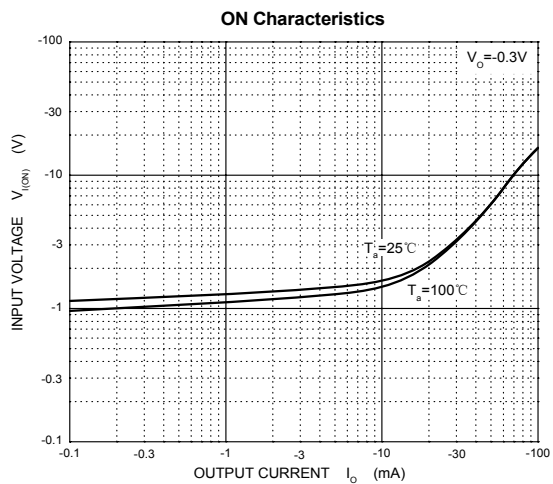
Symbol	Parameter	Limits(DTA143E□)				Unit
		E	UA	KA	CA	
V _{CC}	Supply Voltage	-50				V
V _{IN}	Input Voltage	-30~+10				V
I _O	Output Current	-100				mA
P _D	Power Dissipation	150	200	200	200	mW
T _j	Junction Temperature	150				°C
T _{stg}	Storage Temperature	-55~+150				°C

ELECTRICAL CHARACTERISTICS (Ta=25°C unless otherwise specified)

Parameter	Symbol	Conditions	Min	Typ	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 =-20 mA			-3	V
Output voltage	V _{O(on)}	I _O /I _I =-10mA/-0.5mA			-0.3	V
Input current	I _I	V _I =-5V			-1.8	mA
Output current	I _{O(off)}	V _{CC} =-50V, V _I =0			-0.5	μA
DC current gain	G _I	V _O =-5V, I _O =-10mA	30			
Input resistance	R ₁		3.29	4.7	6.11	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

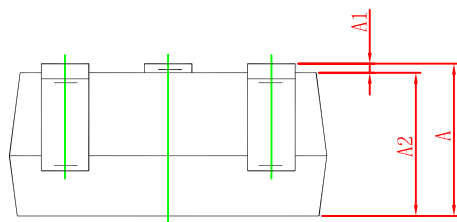
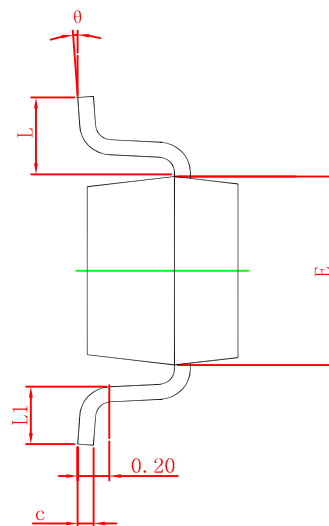
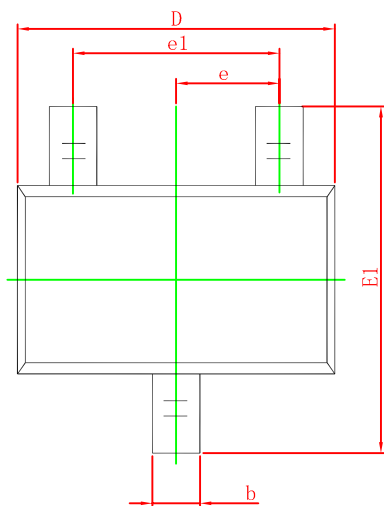


Typical Characteristics





SOT-323 PACKAGE OUTLINE DIMENSIONS



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min.	Max.	Min.	Max.
A	0.900	1.100	0.035	0.043
A1	0.000	0.100	0.000	0.004
A2	0.900	1.000	0.035	0.039
b	0.200	0.400	0.008	0.016
c	0.080	0.150	0.003	0.006
D	2.000	2.200	0.079	0.087
E	1.150	1.350	0.045	0.053
E1	2.150	2.450	0.085	0.096
e	0.650 TYP.		0.026 TYP.	
e1	1.200	1.400	0.047	0.055
L	0.525 REF.		0.021 REF.	
L1	0.260	0.460	0.010	0.018
θ	0°	8°	0°	8°