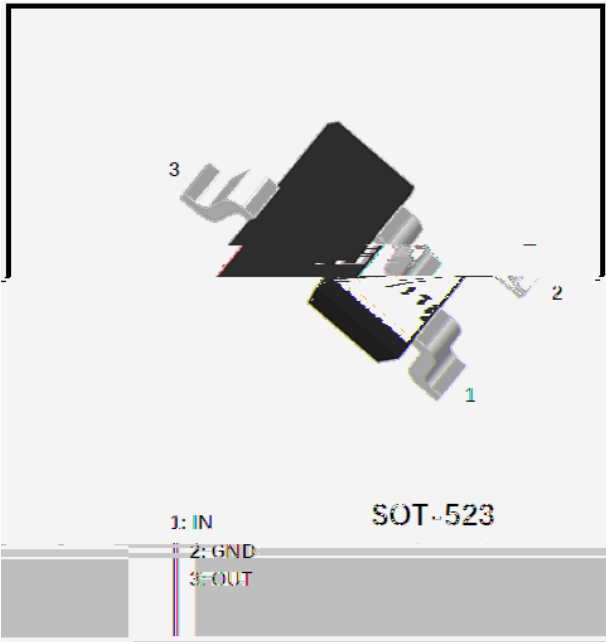


NPN Digital Transistors (Built-in Resistors)



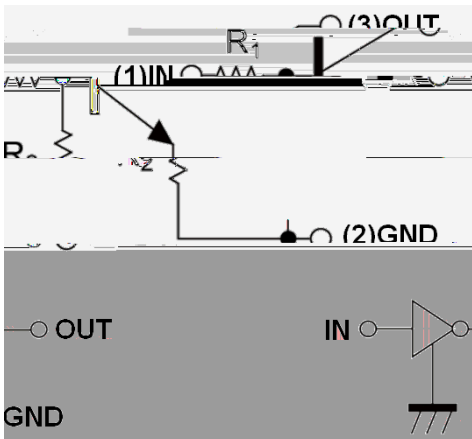
Features

- Moisture Sensitivity Level 1
- Surface mount package ideally Suited for Automatic Insertion
- Halogen-free

Mechanical Data

- Package:** SOT-523
- Terminals:** Tin plated leads, solderable per J-STD-002 and JESD22-B102
- Marking:** 43

Equivalent circuit



Maximum Ratings (Ta=25 Unless otherwise specified)

ITEM	SYMBOL	UNIT	CONDITIONS	VALUE
Supply Voltage	V_{CC}	V		50
Input Voltage	V_{IN}	V		-7 to +20
Output Current	I_o	mA		100
Power Dissipation	P_D	mW		150
Junction Temperature	T_J			150
Storage Temperature	T_{STG}			-55 to +150



DTC143XE

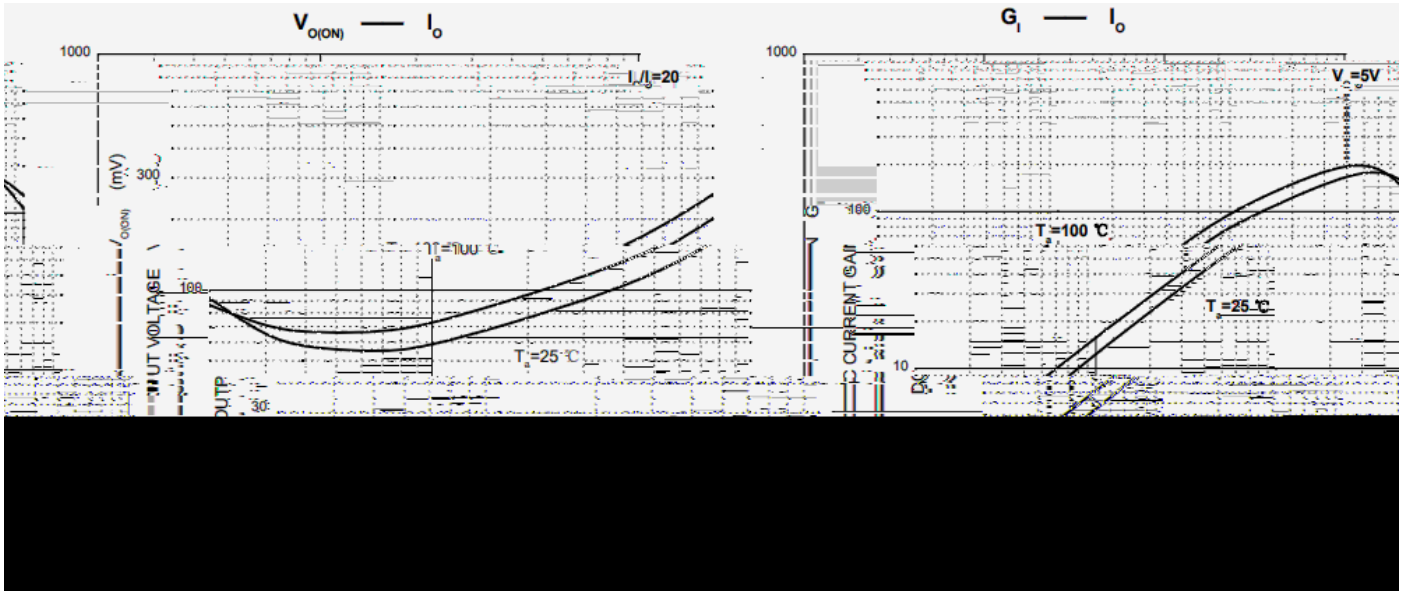
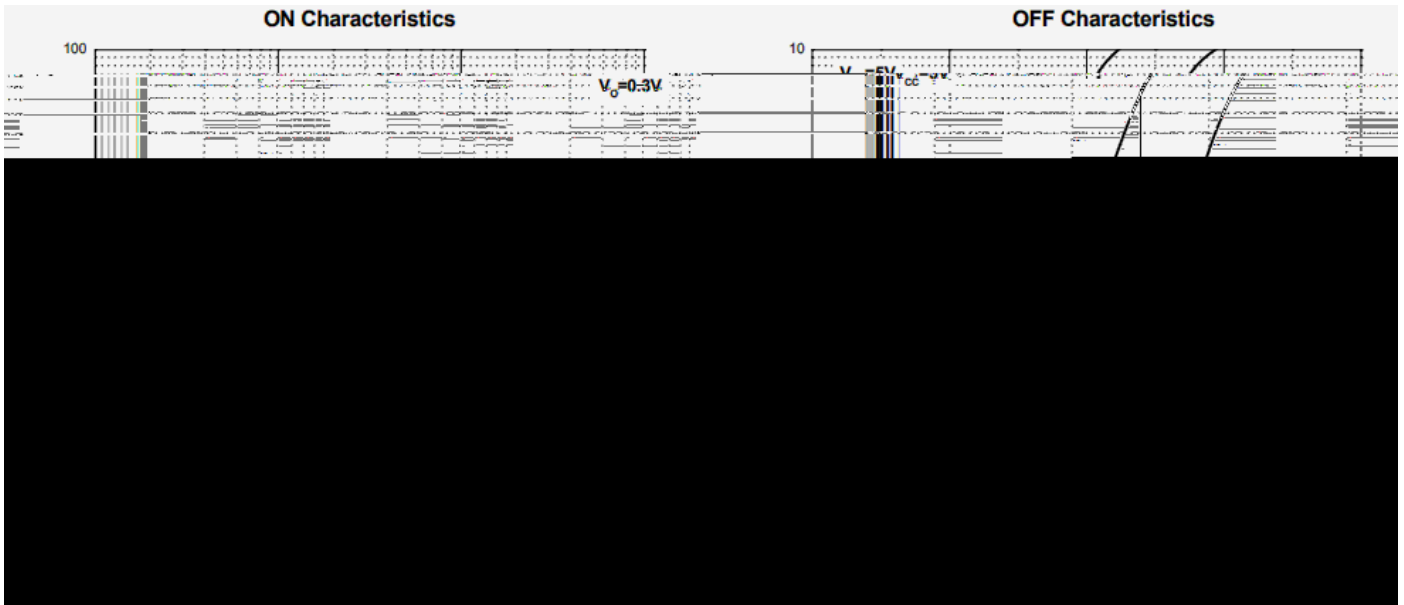
Electrical Characteristics (Ta=25 unless otherwise specified)

ITEM	SYMBOL	UNIT	CONDITIONS	MIN	TYP	MAX
Input voltage	$V_{I(off)}$	V	$V_{CC}=5V, I_o=100\mu A$	0.3	-	-
	$V_{I(on)}$	V	$V_o=0.3V, I_o=20mA$	-	-	2.5
Output voltage	$V_{O(on)}$	V	$I_o / I_i = 10mA / 0.5 mA$			



DTC143XE

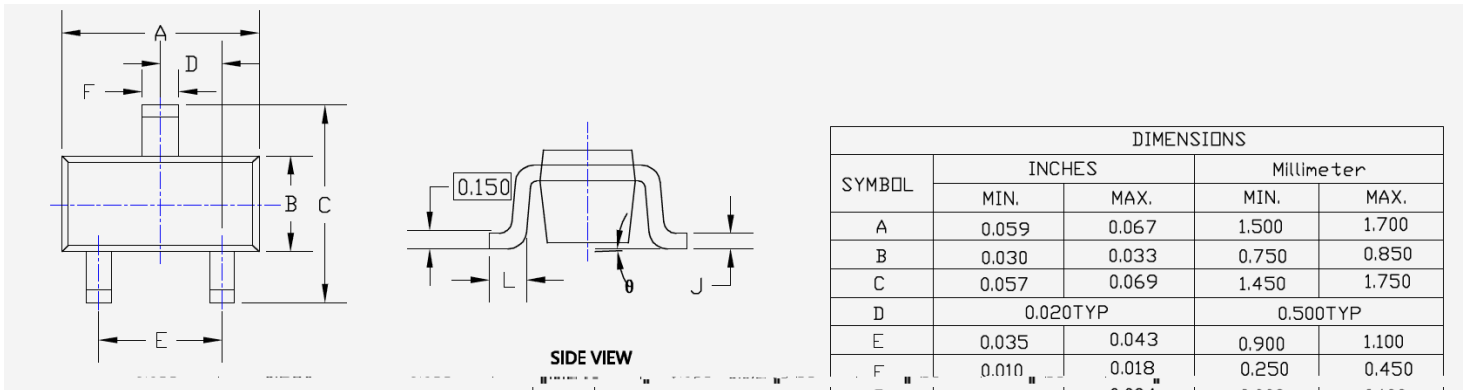
Characteristics (Typical)





DTC143XE

SOT-523 Package Outline Dimensions



Note:

1. All dimensions are in millimeters (mm) unless otherwise specified.
[所有尺寸均以毫米为单位, 除非另有说明]
2. General tolerances: $\pm 0.10\text{mm}$ unless otherwise specified.
[通用公差为 $\pm 0.10\text{mm}$, 除非另有说明]
3. Dimensions and 