



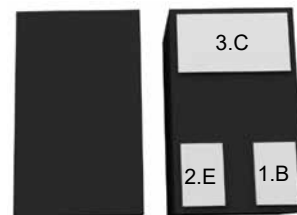
# DTC143EDC

## NPN Digital Transistor

### Features

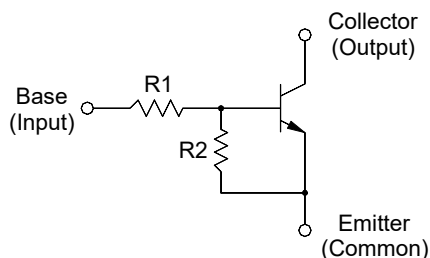
- With built-in bias resistors
- Simplify circuit design
- Reduce a quantity of parts and manufacturing process

DFN1x0.6-3L



1.Base 2.Emitter 3.Collector

### Equivalent Circuit



### Resistor Values/Marking Code

Type	R1 (K $\Omega$ )	R2 (K $\Omega$ )	Marking Code
DTC143EDC	4.7	4.7	6A

### Absolute Maximum Ratings (T<sub>A</sub>=25°C)

Parameter	Symbol	Value	Unit
Output Voltage	V <sub>O</sub>	50	V
Input Voltage	V <sub>I</sub>	20,-10	V
Output Current	I <sub>O</sub>	100	mA
Maximum Power Dissipation	P <sub>D</sub>	200	mW
Junction Temperature	T <sub>J</sub>	150	°C
Storage Temperature Range	T <sub>STG</sub>	-55 to +150	°C



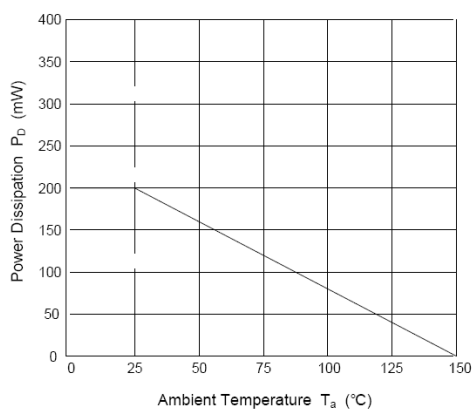
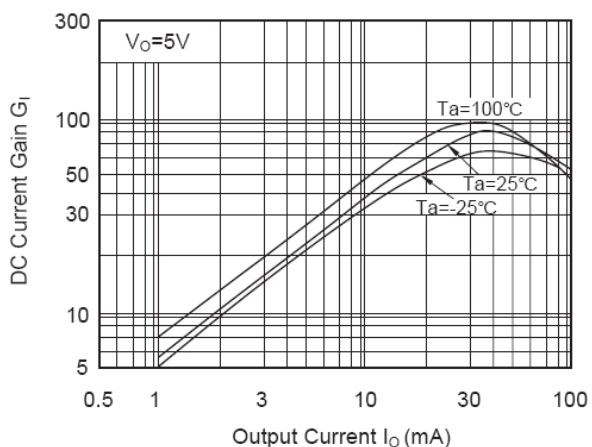
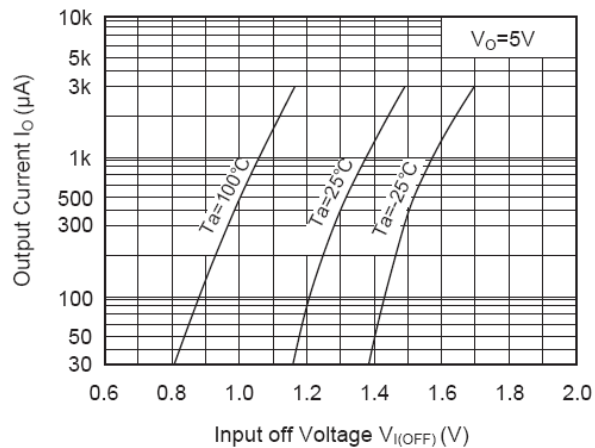
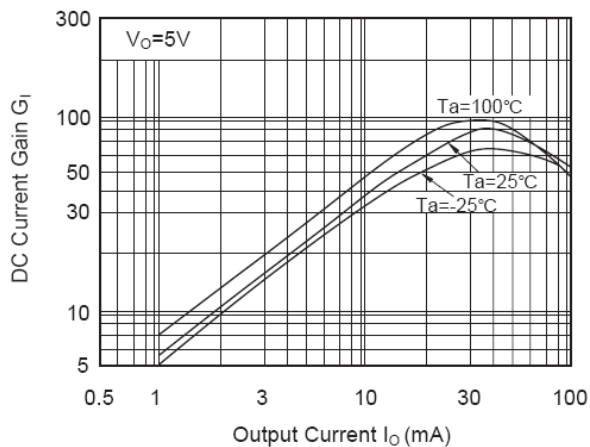
# DTC143EDC

## NPN Digital Transistor

### Electrical Characteristics (T<sub>A</sub>=25°C)

Parameter	Symbol	Min.	Typ.	Max.	Unit
DC Current Gain at V <sub>O</sub> = 5 V, I <sub>O</sub> = 10 mA	G <sub>I</sub>	30	--	--	--
Output Cutoff Current at V <sub>O</sub> = 50 V	I <sub>O(OFF)</sub>	--	--	500	nA
Input Cutoff Current at V <sub>I</sub> = 5 V	I <sub>I</sub>	--	--	1.8	mA
Output Voltage (ON) at I <sub>O</sub> = 10 mA, I <sub>I</sub> = 0.5 mA	V <sub>O(ON)</sub>	--	--	0.3	V
Input Voltage (ON) at V <sub>O</sub> = 0.2 V, I <sub>O</sub> = 5 mA	V <sub>I(ON)</sub>	--	--	2	V
Input Voltage (OFF) at V <sub>O</sub> = 5 V, I <sub>O</sub> = 0.1 mA	V <sub>I(OFF)</sub>	1	--	--	V
Transition Frequency at V <sub>O</sub> = -10 V, I <sub>O</sub> = -5 mA	f <sub>T</sub>	--	200	--	MHz

### Typical Characteristic Curves





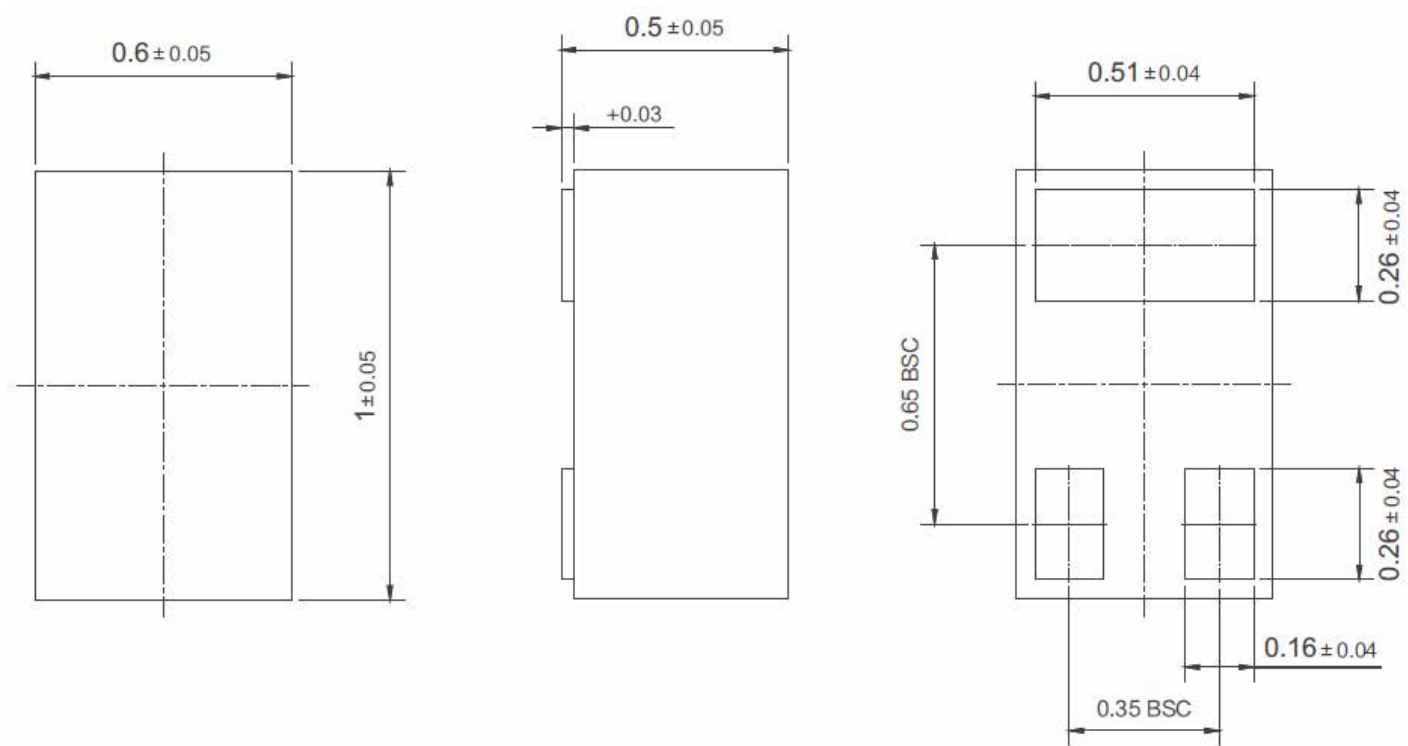
# DTC143EDC

## NPN Digital Transistor

### Package Outline

DFN1x0.6-3L-0009

Dimensions in mm



### Ordering Information

Device	Package	Shipping
DTC143EDC	DFN1x0.6-3L	3,000PCS/Reel&7inches