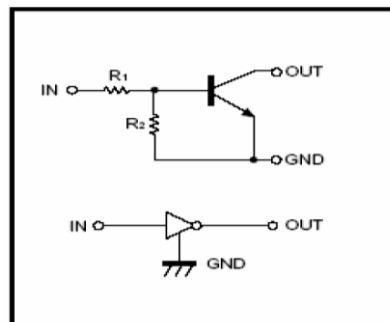


RoHS Compliant Product
A suffix of "-C" specifies halogen & lead-free

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.

EQUIVALENT CIRCUIT



ORDER INFORMATION

Part Number	Type
DTC143E Series	Lead (Pb)-free
DTC143E Series-C	Lead (Pb)-free and Halogen-free

PIN CONNENCTIONS AND MARKING

DTC143EM 1. IN 2. GND 3. OUT SOT-723 MARKING:23	DTC143EE 1. IN 2. GND 3. OUT SOT-523 MARKING:23
DTC143EUA 1. IN 2. GND 3. OUT SOT-323 MARKING:23	DTC143ECA 1. IN 2. GND 3. OUT SOT-23 MARKING:23
DTC143ESA 1. IN 2. GND 3. OUT TO-92S MARKING: C143 E000 = Production Line Indication	

ABSOLUTE MAXIMUM RATINGS (T_A=25°C unless otherwise noted)

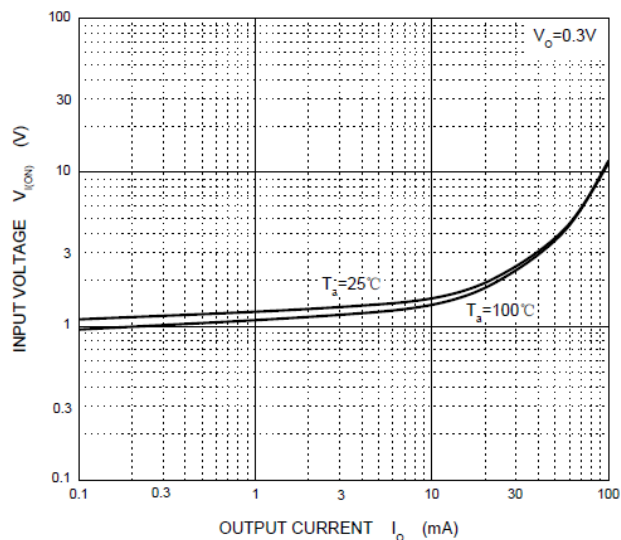
Parameter	Symbol	Limits (DTC143E□)					Unit
		M	E	UA	CA	SA	
Supply Voltage	V _{CC}	50					V
Input Voltage	V _{IN}	-10~30					
Output Current	I _O	100					mA
Power Dissipation	P _D	100	150	200		300	mW
Junction & Storage Temperature	T _J , T _{STG}	150, -55~150					°C

ELECTRICAL CHARACTERISTICS (T_A=25°C unless otherwise noted)

Parameter	Symbol	Min.	Typ.	Max.	Unit	Test Conditions
Input Voltage	V _{I(off)}	0.5	-	-	V	V _{CC} =5V, I _O =100μA
	V _{I(on)}	-	-	3		V _O =0.3V, I _O =20mA
Output Voltage	V _{O(on)}	-	-	0.3	V	I _O /I _I =10mA/0.5mA
Input Current	I _I	-	-	1.8	mA	V _I =5V
Output Current	I _{O(off)}	-	-	0.5	μA	V _{CC} =50V, V _I =0
DC Current Gain	G _I	20	-	-		V _O =5V, I _O =10mA
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	-	250	-	MHz	V _O =10V, I _O =5mA, f=100MHz

CHARACTERISTIC CURVES

ON Characteristics



OFF Characteristics

