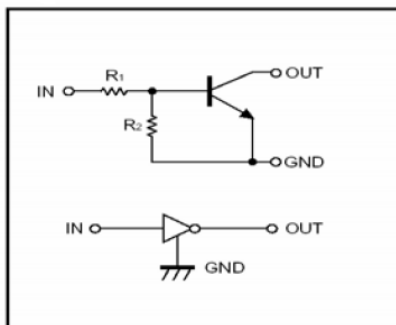


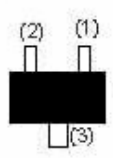
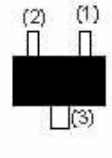
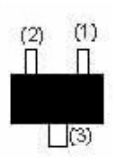
RoHS Compliant Product
A suffix of "-C" specifies halogen & lead-free

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



DTC123YE (SOT-523)	DTC123YUA (SOT-323)
 <p>1.IN 2.GND 3.OUT</p>	 <p>1.IN 2.GND 3.OUT</p>
Abbreviated symbol : 62	Abbreviated symbol : 62
DTC123YCA (SOT-23)	
 <p>1.IN 2.GND 3.OUT</p>	
Abbreviated symbol : 62	

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

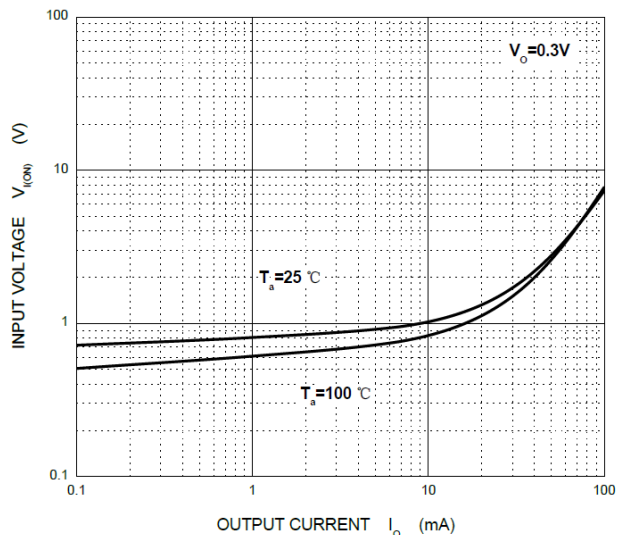
Parameter	Symbol	Limits (DTC123Y□)			Unit
		E	UA	CA	
Supply Voltage	V _{CC}	50			V
Input Voltage	V _{IN}	-5~12			V
Output Current	I _O	100			mA
Power Dissipation	P _D	150	200		mW
Junction and Storage Temperature	T _J , T _{STG}	150, -55~150			°C

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

Parameter	Symbol	Min.	Typ.	Max.	Unit	Test Condition
Input Voltage	V _{I(off)}	0.3	-	-	V	V _{CC} =5V, I _O =100μA
	V _{I(on)}	-	-	3		V _O =0.3V, I _O =20mA
Output Voltage	V _{O(on)}	-	0.1	0.3	V	I _O /I _I =10mA / 0.5mA
Input Current	I _I	-	-	3.8	mA	V _I =5V
Output Current	I _{O(off)}	-	-	0.5	μA	V _{CC} =50V, V _I =0
DC Current Gain	G _I	33	-	-		V _O =5V, I _O =10mA
Input Resistance	R ₁	1.54	2.2	2.86	KΩ	
Resistance Ratio	R ₂ / R ₁	3.6	4.5	5.5		
Transition Frequency	f _T	-	250	-	MHz	V _O =10V, I _O =5mA, f=100MHz

CHARACTERISTIC CURVES

ON Characteristics



OFF Characteristics

