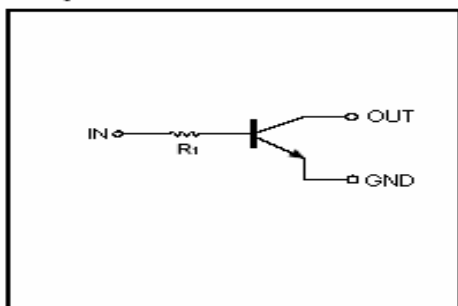


RoHS Compliant Product
A suffix of "-C" specifies halogen & lead-free

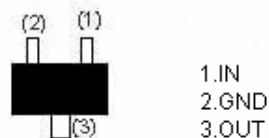
FEATURES

- 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

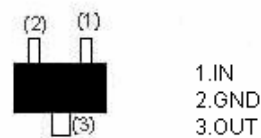


DTC144TE (SOT-523)



Abbreviated symbol : 06

DTC144TUA (SOT-323)



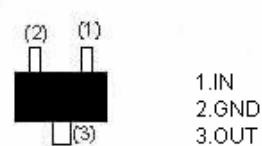
Abbreviated symbol : 06

DTC144TM (SOT-723)



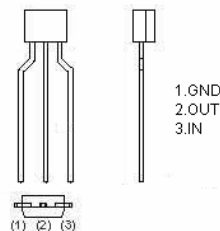
Abbreviated symbol : 06

DTC144TCA (SOT-23)



Abbreviated symbol : 06

DTA143TSA (TO-92S)



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

Parameter	Symbol	Limits (DTC144T□)					Unit
		M	E	UA	CA	SA	
Collector-Base Voltage	V _{(BR)CBO}	50					V
Collector-Emitter Voltage	V _{(BR)CEO}	50					V
Emitter-Base Voltage	V _{(BR)EBO}	5					mA
Collector Current	I _C	100					
Collector Dissipation	P _C	100	150	200		300	mW
Junction & Storage temperature	T _J , T _{STG}	150, -55~150					℃

ELECTRICAL CHARACTERISTICS ($T_A=25^{\circ}\text{C}$ unless otherwise noted)

Parameter	Symbol	Min.	Typ.	Max.	Unit	Test Conditions
Collector-base breakdown voltage	$V_{(BR)CBO}$	50	-	-	V	$I_C=50\mu\text{A}$, $I_E=0$
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	50	-	-	V	$I_C=1\text{mA}$, $I_B=0$
Emitter-base breakdown voltage	$V_{(BR)EBO}$	5	-	-	V	$I_E=50\mu\text{A}$, $I_C=0$
Collector cut-off current	I_{CBO}	-	-	0.5	μA	$V_{CB}=50\text{V}$, $I_E=0$
Emitter cut-off current	I_{EBO}	-	-	0.5	μA	$V_{EB}=4\text{V}$, $I_C=0$
Collector-emitter saturation voltage	$V_{CE(sat)}$	-	-	0.3	V	$I_C=5\text{mA}$, $I_B=0.5\text{mA}$
DC current transfer ratio	h_{FE}	100	300	600		$V_{CE}=5\text{V}$, $I_C=1\text{mA}$
Input resistance	R_1	32.9	47	61.1	K Ω	
Transition frequency	f_T	250	-	-	MHz	$V_O=10\text{V}$, $I_E=-5\text{mA}$, $f=100\text{MHz}$