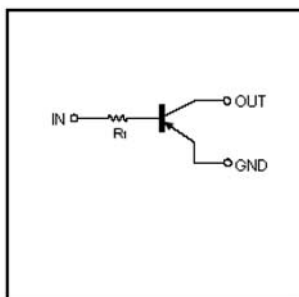


RoHS Compliant Product
A suffix of "-C" specifies halogen & lead-free

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



DTA144TE (SOT-523) 1.IN 2.GND 3.OUT Abbreviated symbol : 96	DTA144TUA (SOT-323) 1.IN 2.GND 3.OUT Abbreviated symbol : 96
DTA144TSA (TO-92S) 1.GND 2.OUT 3.IN Abbreviated symbol : 96	DTA144TCA (SOT-23) 1.IN 2.GND 3.OUT Abbreviated symbol : 96

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

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

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

Parameter	Symbol	Min.	Typ.	Max.	Unit	Test Conditions
Collector-base breakdown voltage	V _{(BR)CBO}	-50	-	-	V	I _C = -50μA, I _E = 0
Collector-emitter breakdown voltage	V _{(BR)CEO}	-50	-	-		I _C = -1mA, I _B = 0
Emitter-base breakdown voltage	V _{(BR)EBO}	-5	-	-	V	I _E = -50μA, I _C =0
Collector cut-off current	I _{CBO}	-	-	-0.5	μA	V _{CB} = -50V, I _E =0
Emitter cut-off current	I _{EBO}	-	-	-0.5	μA	V _{EB} = -4V, I _C =0
DC current gain	h _{FE}	100	300	600		V _{CE} = -5V, I _C = -1mA
Collector-emitter saturation voltage	V _{CE(sat)}	-	-	-0.3	V	I _C = -5mA, I _B = -0.5mA
Transition frequency	f _T	-	250	-	MHz	V _{CE} = -10V, I _C = -5mA, f= 100MHz
Input resistor	R1	32.9	47	61.1	kΩ	

CHARACTERISTIC CURVES

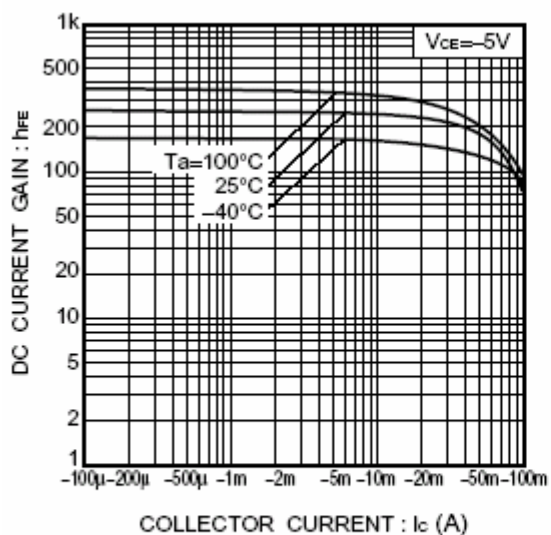


Fig.1 DC current gain vs.collector current

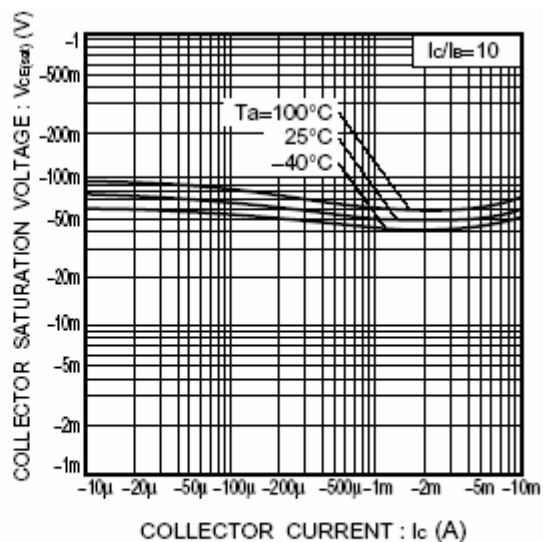


Fig.2 Collector-emitter saturation voltage vs.collector current