

**Silicon NPN transistor epitaxial type (Bias resistor built-in transistor)**

**ICT100N137**

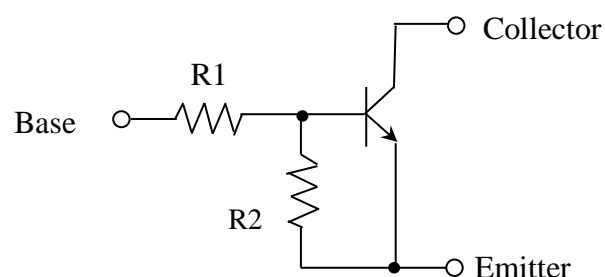
**[ Applications ]**

Switching circuit, Inverter circuit, Interface circuit and Driver circuit

**[ Feature ]**

Built-in bias resistors, Simplified circuit design  
Complimentary pair with ICT100P137

**[ Circuit diagram ]**



**[ Absolute maximum ratings (Ta=25C) ]**

Characteristic	Symbol	Maximum ratings	Unit
Collector-base voltage	VCBO	40	V
Collector-emitter voltage	VCEO	40	V
Emitter-base voltage	VEBO	6	V
Collector current	IC	1	A
Junction temperature	Tj	150	C
Storage temperature	Tstg	-55 to 150	C

**[ Electrical characteristics (Ta=25C) ]**

Characteristic	Symbol	Min.	Typ.	Max.	Unit	Conditions
Collector-emitter voltage	VCEO	40	-	-	V	ICE= 1mA
Collector cut-off current	ICBO	-	-	0.1	uA	VCB= 40V, IE= 0A
DC current gain	hFE	100	-	-	-	VCE= 5V, IC= 100mA
Collector-emitter saturation voltage	VCE(sat)	-	-	0.3	V	IC= 300mA, IB= 3mA
Input on voltage	VI(on)	-	-	4	V	VCE= 0.2V, IC= 300mA
Input off voltage	VI(off)	0.4	0.53	-	V	VCE= 5V, IC= 100uA
Input resistance	R1	0.7	1	1.3	kohm	-
Resistance ratio	R2/R1	20	22	24	-	-
Transition Frequency	fT	-	130	-	MHz	VCE= 6V, IE= -10mA

Notice 1) These are measured data of transistors assembled by PHENITEC SEMICONDUCTOR Corp. and are for reference only.

Notice 2) The contents described herein are subject to change without notice.