



TO-92 Plasti -Encapsulate Transistors

2N5551 TRANSISTOR (NPN)

FEATURES

Power dissipation

$P_{CM} : 0.625 \text{ W (Tamb=25}^{\circ}\text{C)}$

Collector current

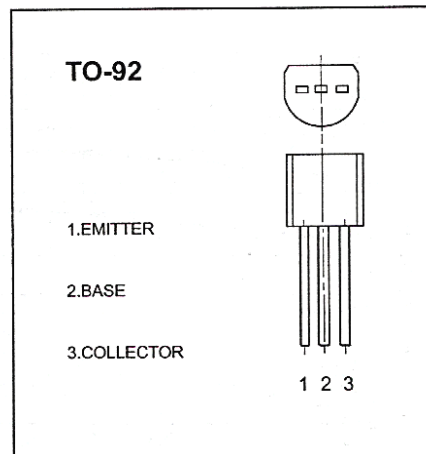
$I_{CM} : 0.6 \text{ A}$

Collector-base voltage

$V_{(BR)CBO} : 180 \text{ V}$

Operating and storage junction temperature range

$T_J, T_{stg} : -55^{\circ}\text{C to } +150^{\circ}\text{C}$



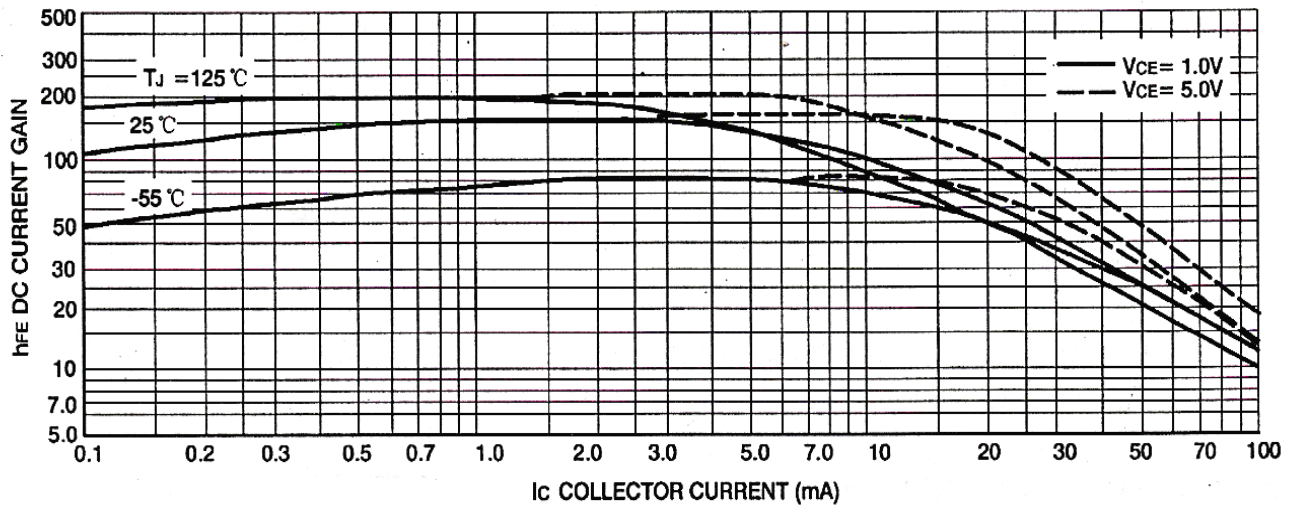
ELECTRICAL CHARACTERISTICS

(Tamb=25°C unless otherwise specified)

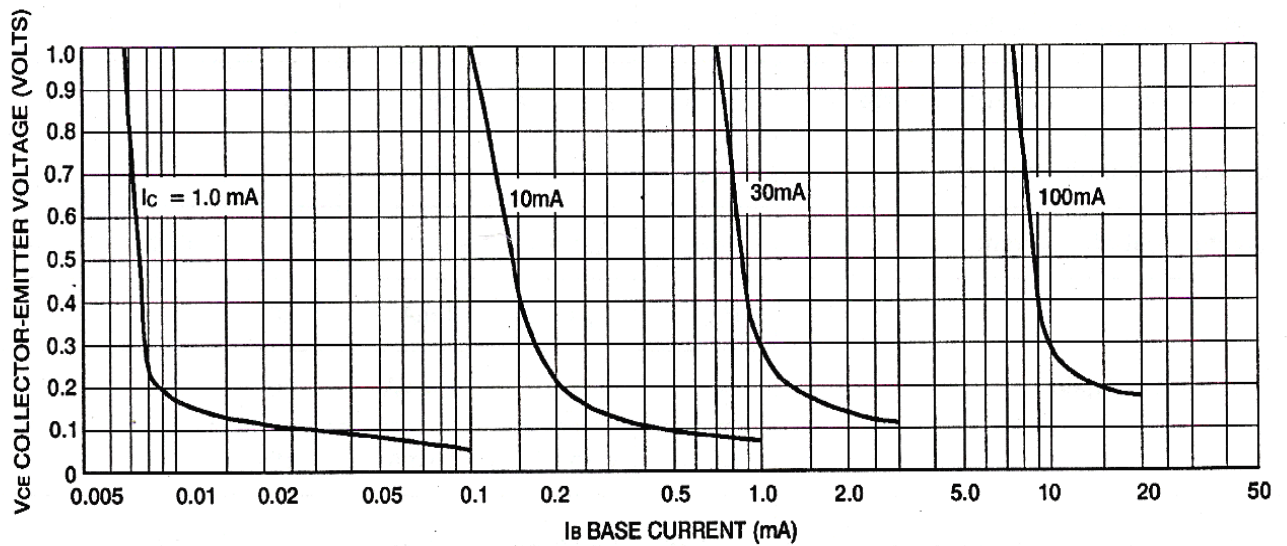
Parameter	Symbol	Test conditions	MIN	MAX	UNIT
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C = 100 \mu\text{A}, I_E = 0$	180		V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C = 1 \text{ mA}, I_B = 0$	160		V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E = 10 \mu\text{A}, I_C = 0$	6		V
Collector cut-off current	I_{CBO}	$V_{CB} = 120 \text{ V}, I_E = 0$		0.05	μA
Emitter cut-off current	I_{EBO}	$V_{EB} = 4 \text{ V}, I_C = 0$		0.05	μA
DC current gain	$H_{FE(1)}$	$V_{CE} = 5 \text{ V}, I_C = 1 \text{ mA}$	80		
	$H_{FE(2)}$	$V_{CE} = 5 \text{ V}, I_C = 10 \text{ mA}$	80	250	
	$H_{FE(3)}$	$V_{CE} = 5 \text{ V}, I_C = 50 \text{ mA}$	50		
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C = 50 \text{ mA}, I_B = 5 \text{ mA}$		0.5	V
Base-emitter saturation voltage	$V_{BE(sat)}$	$I_C = 50 \text{ mA}, I_B = 5 \text{ mA}$		1	V
Transition frequency	f_T	$V_{CE} = 5 \text{ V}, I_C = 10 \text{ mA}$ $f = 30 \text{ MHz}$	100		MHz

CLASSIFICATION OF $H_{FE(2)}$

Rank	A	B	C
Range	80-160	120-180	150-250



DC current Gain



Collector Saturation Region