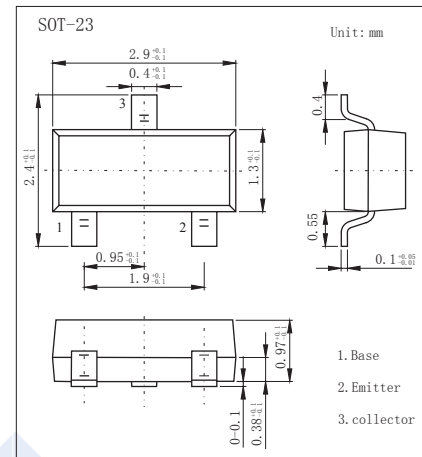


## NPN Transistors

## 2SC3124

## ■ Features

- Collector Current Capability  $I_C=50\text{mA}$
- Collector Emitter Voltage  $V_{CE0}=15\text{V}$

■ Absolute Maximum Ratings  $T_a = 25^\circ\text{C}$ 

Parameter	Symbol	Rating	Unit
Collector - Base Voltage	$V_{CB0}$	30	V
Collector - Emitter Voltage	$V_{CE0}$	15	
Emitter - Base Voltage	$V_{EB0}$	3	
Collector Current - Continuous	$I_C$	50	mA
Base Current	$I_B$	25	
Collector Power Dissipation	$P_C$	150	mW
Junction Temperature	$T_J$	125	$^\circ\text{C}$
Storage Temperature Range	$T_{stg}$	-55 to 125	

■ Electrical Characteristics  $T_a = 25^\circ\text{C}$ 

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector- base breakdown voltage	$V_{CB0}$	$I_C = 100 \mu\text{A}$ , $I_E = 0$	30			V
Collector- emitter breakdown voltage	$V_{CE0}$	$I_C = 1 \text{ mA}$ , $I_B = 0$	15			
Emitter - base breakdown voltage	$V_{EB0}$	$I_E = 100 \mu\text{A}$ , $I_C = 0$	3			
Collector-base cut-off current	$I_{CBO}$	$V_{CB} = 15 \text{ V}$ , $I_E = 0$			0.1	uA
Emitter cut-off current	$I_{EBO}$	$V_{EB} = 3 \text{ V}$ , $I_C = 0$			1	
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C = 50 \text{ mA}$ , $I_B = 5 \text{ mA}$			0.5	V
Base - emitter saturation voltage	$V_{BE(sat)}$	$I_C = 50 \text{ mA}$ , $I_B = 5 \text{ mA}$			1.2	
DC current gain	$h_{FE}$	$V_{CE} = 3 \text{ V}$ , $I_C = 8 \text{ mA}$	40		200	
Collector-base time constant	$C_{c\text{-}rb'}$	$V_{CB} = 10 \text{ V}$ , $I_C = 8 \text{ mA}$ , $f = 30 \text{ MHz}$			12	ps
Collector output capacitance	$C_{ob}$	$V_{CB} = 10 \text{ V}$ , $I_E = 0$ , $f = 1 \text{ MHz}$			1.3	pF
Transition frequency	$f_T$	$V_{CE} = 10 \text{ V}$ , $I_C = 8 \text{ mA}$	650			MHz

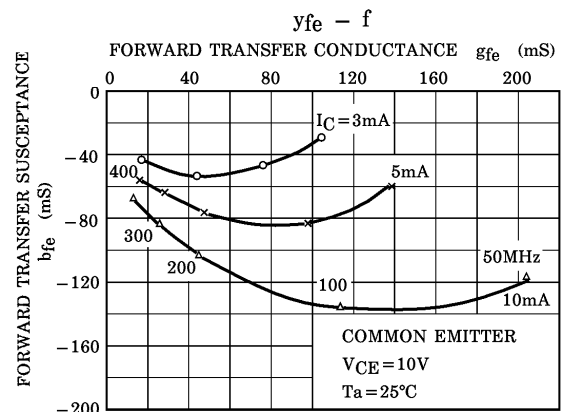
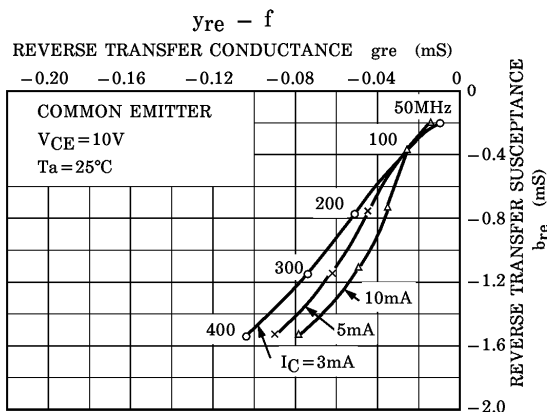
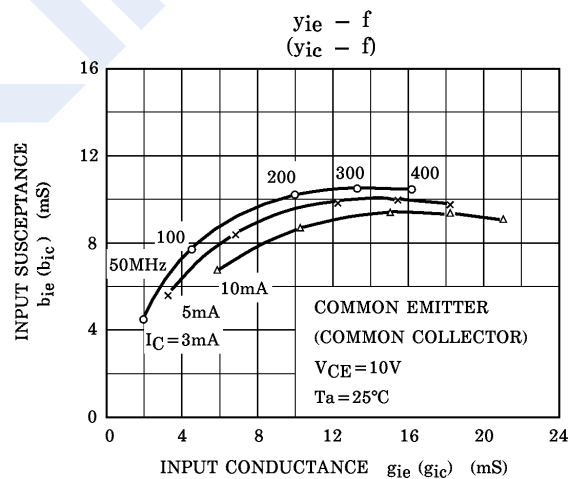
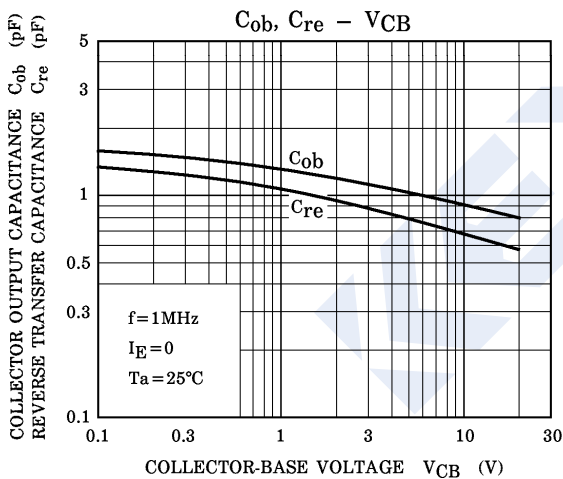
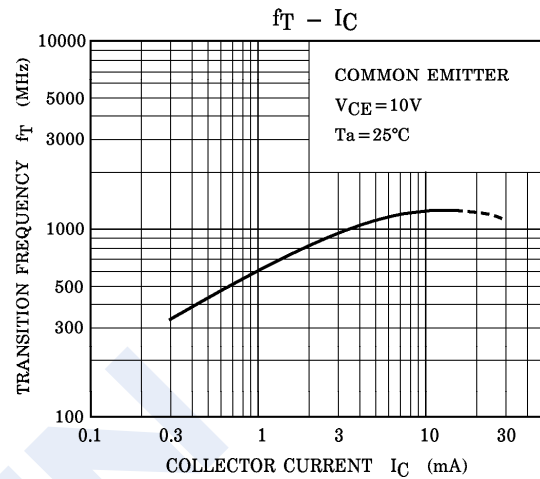
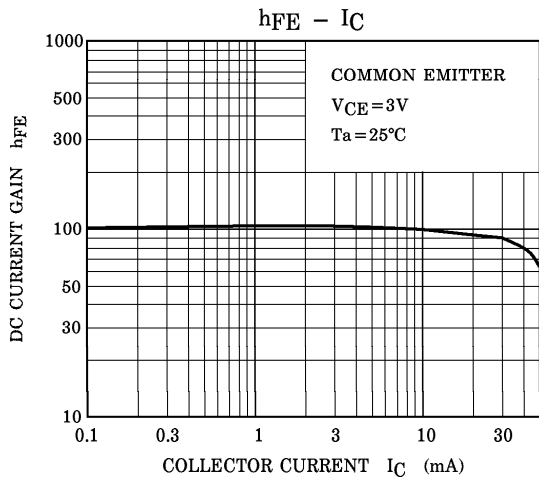
## ■ Marking

Marking	HF
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### NPN Transistors

### 2SC3124

■ Typical Characteristics



# NPN Transistors

## 2SC3124

### Typical Characteristics

