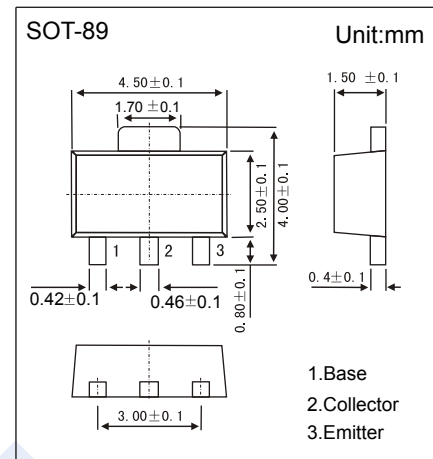


## NPN Transistors

### 2SC3515

#### ■ Features

- Collector Current Capability  $I_c=100\text{mA}$
- Collector Emitter Voltage  $V_{CE0}=300\text{V}$



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

Parameter	Symbol	Rating	Unit
Collector - Base Voltage	$V_{CBO}$	300	V
Collector - Emitter Voltage	$V_{CEO}$	300	
Emitter - Base Voltage	$V_{EBO}$	6	
Collector Current - Continuous	$I_c$	100	mA
Base Current	$I_B$	20	
Collector Power Dissipation (Note.1)	$P_C$	500	mW
		1	W
Junction Temperature	$T_J$	150	$^\circ\text{C}$
Storage Temperature Range	$T_{stg}$	-55 to 150	

Note.1 : Mounted on ceramic substrate (250mm<sup>2</sup>X0.8mmt)

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

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector- base breakdown voltage	$V_{CBO}$	$I_c= 100 \mu\text{A}, I_E= 0$	300			V
Collector- emitter breakdown voltage	$V_{CEO}$	$I_c= 1 \text{ mA}, I_B= 0$	300			
Emitter - base breakdown voltage	$V_{EBO}$	$I_E= 100 \mu\text{A}, I_c= 0$	6			
Collector-base cut-off current	$I_{CBO}$	$V_{CB}= 300 \text{ V}, I_E= 0$			0.1	$\mu\text{A}$
Emitter cut-off current	$I_{EBO}$	$V_{EB}= 6 \text{ V}, I_c=0$			0.1	
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_c=20 \text{ mA}, I_B=2\text{mA}$			0.5	V
Base - emitter saturation voltage	$V_{BE(sat)}$	$I_c=20 \text{ mA}, I_B=2\text{mA}$			1	
DC current gain	$h_{FE}$	$V_{CE}= 10\text{V}, I_c= 20\text{mA}$	30		150	
		$V_{CE}= 10\text{V}, I_c= 1\text{mA}$	20			
Collector output capacitance	$C_{ob}$	$V_{CB}= 20\text{V}, I_E= 0, f=1\text{MHz}$			4	pF
Transition frequency	$f_T$	$V_{CE}= 10\text{V}, I_c= 20\text{mA}$	50			MHz

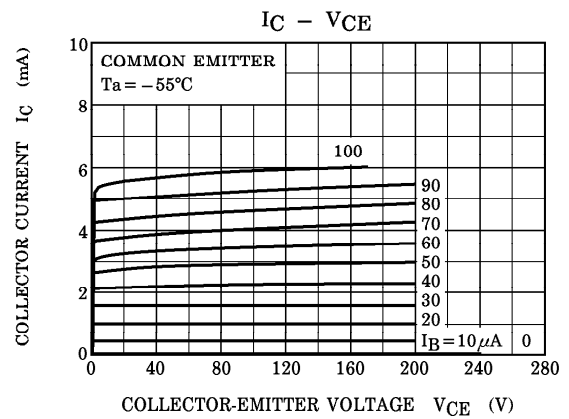
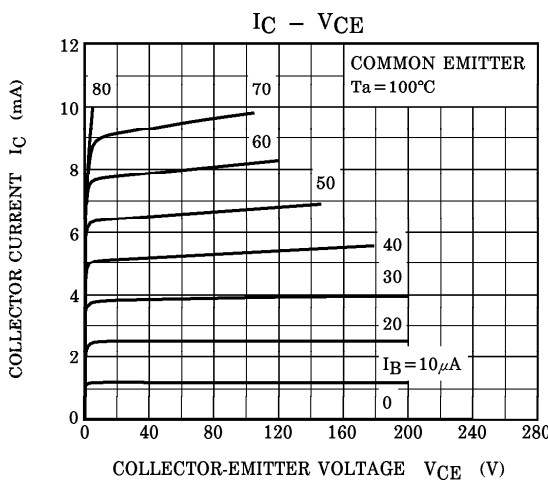
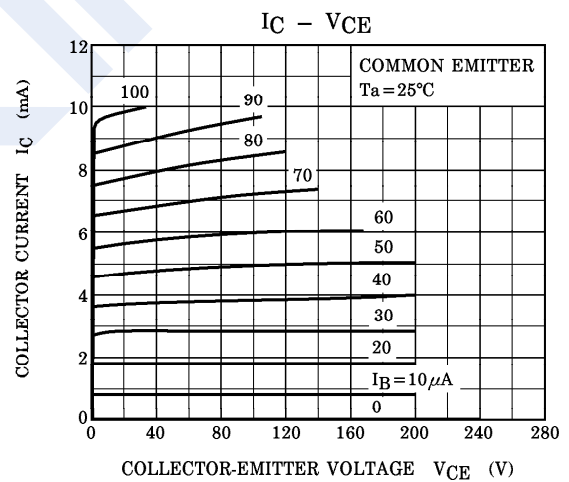
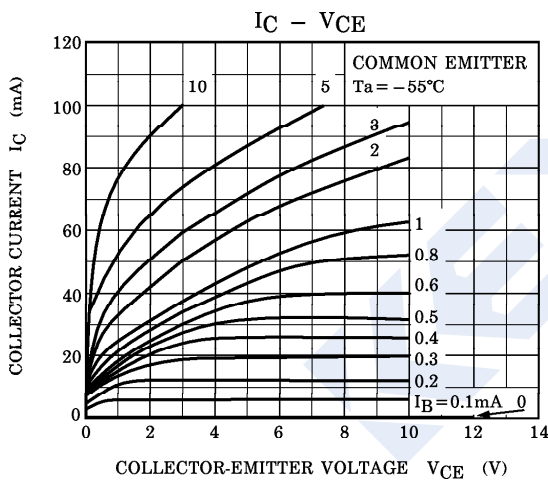
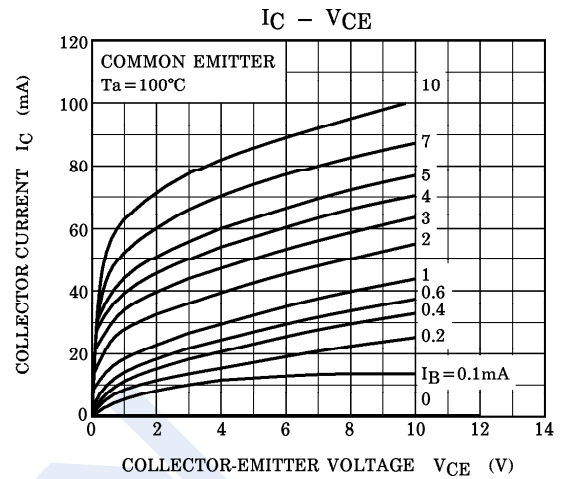
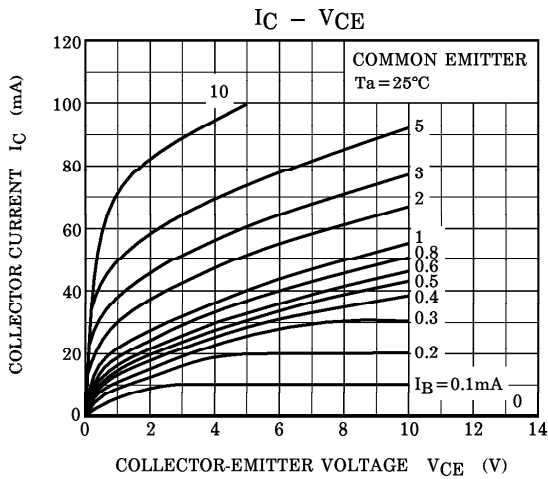
#### ■ Classification of $h_{fe}(1)$

Type	2SC3515-R	2SC3515-O
Range	30-90	50-150
Marking	IR	IO

### NPN Transistors

## 2SC3515

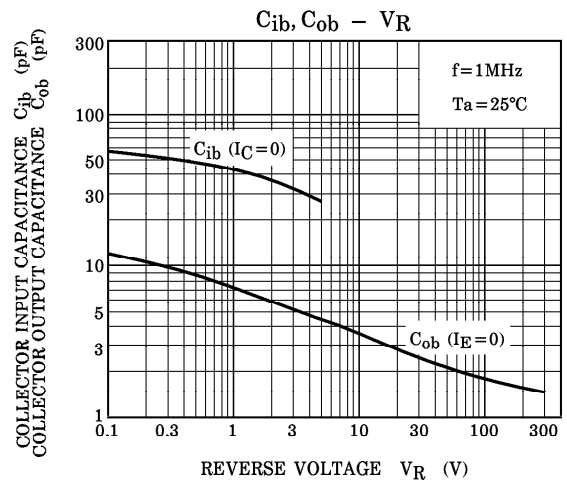
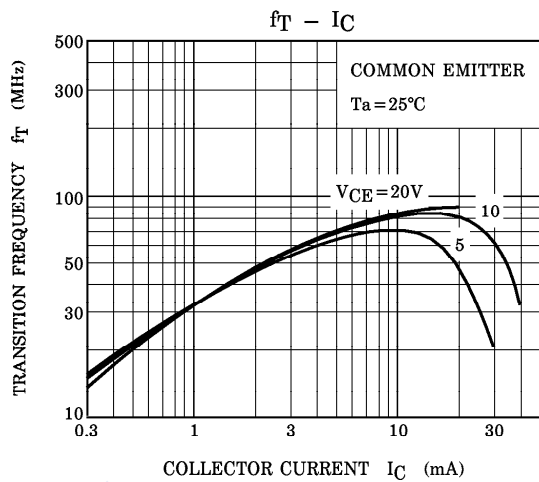
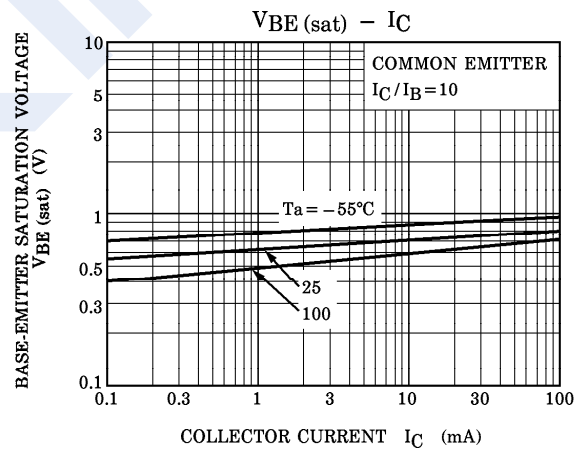
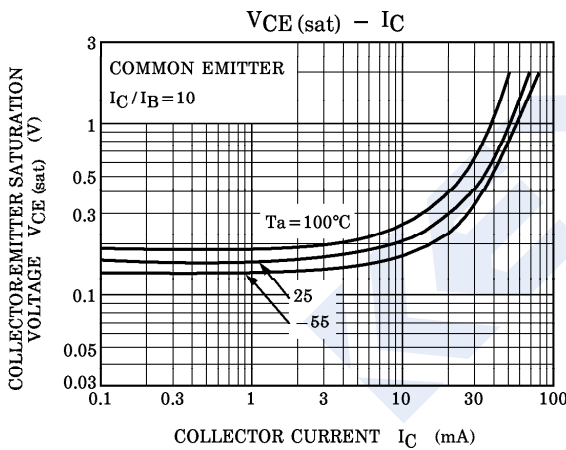
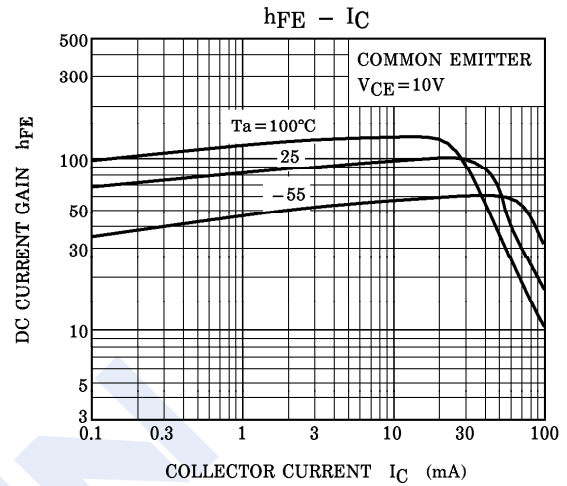
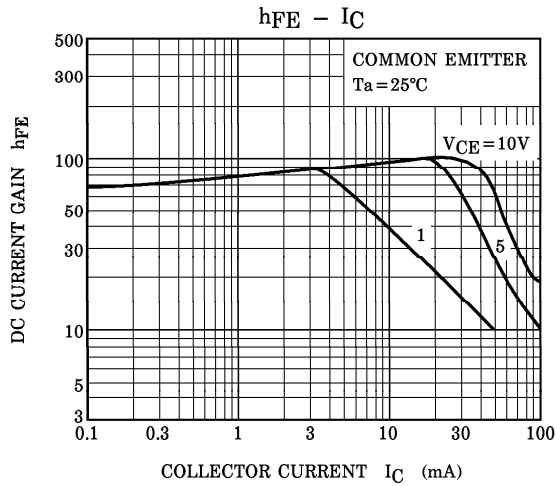
■ Typical Characteristics



## NPN Transistors

### 2SC3515

■ Typical Characteristics



## NPN Transistors 2SC3515

■ Typical Characteristics

