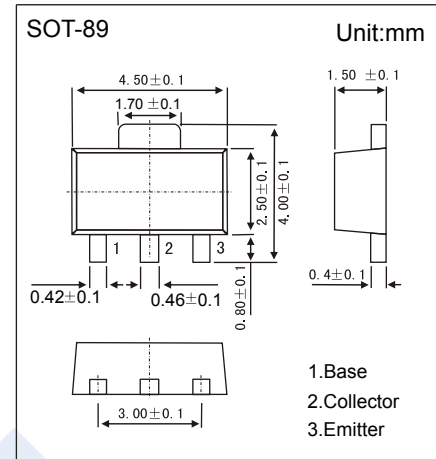


## NPN Transistors

### 2SC3650

#### ■ Features

- Collector Current Capability  $I_C=1.2A$
- Collector Emitter Voltage  $V_{CEO}=25V$



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

Parameter	Symbol	Rating	Unit
Collector - Base Voltage	$V_{CB0}$	30	V
Collector - Emitter Voltage	$V_{CE0}$	25	
Emitter - Base Voltage	$V_{EB0}$	15	
Collector Current - Continuous	$I_C$	1.2	A
Collector Current - Pulse	$I_{CP}$	2	
Collector Power Dissipation (Note.1)	$P_C$	0.5	W
		1.5	
Junction Temperature	$T_J$	150	$^\circ C$
Storage Temperature Range	$T_{stg}$	-55 to 150	

Note.1 : Mounted on ceramic substrate of  $250mm^2 \times 0.8mm$

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

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector- base breakdown voltage	$V_{CB0}$	$I_C = 100 \mu A, I_E = 0$	30			V
Collector- emitter breakdown voltage	$V_{CE0}$	$I_C = 1 mA, I_B = 0$	25			
Emitter - base breakdown voltage	$V_{EB0}$	$I_E = 100 \mu A, I_C = 0$	15			
Collector-base cut-off current	$I_{CB0}$	$V_{CB} = 25 V, I_E = 0$			0.1	$\mu A$
Emitter cut-off current	$I_{EB0}$	$V_{EB} = 10 V, I_C = 0$			0.1	
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C = 500 mA, I_B = 10 mA$			0.5	V
Base - emitter saturation voltage	$V_{BE(sat)}$	$I_C = 500 mA, I_B = 10 mA$			1.2	
DC current gain	$h_{FE}$	$V_{CE} = 5V, I_C = 500 mA$	800		3200	
		$V_{CE} = 5V, I_C = 10 mA$	600			
Collector output capacitance	$C_{ob}$	$V_{CB} = 10V, f = 1MHz$		17		pF
Transition frequency	$f_T$	$V_{CE} = 10V, I_C = 50 mA$		220		MHz

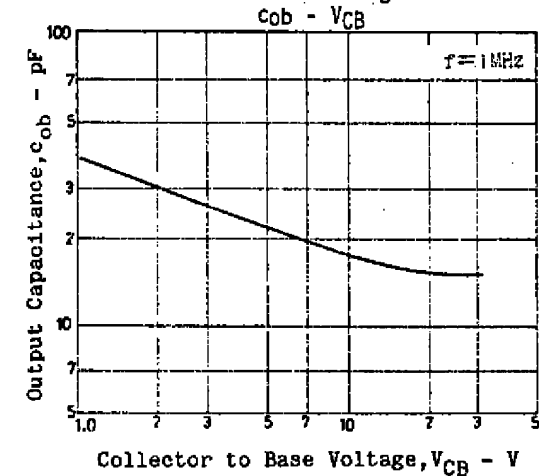
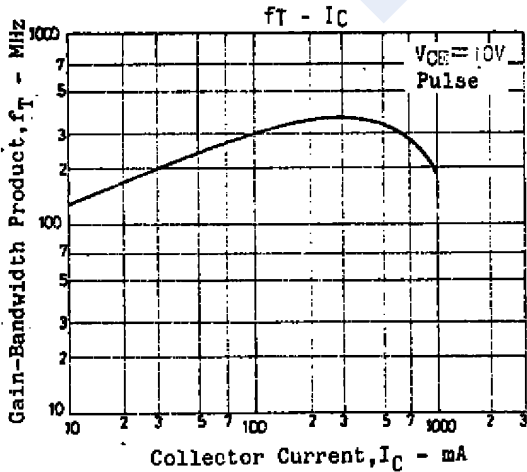
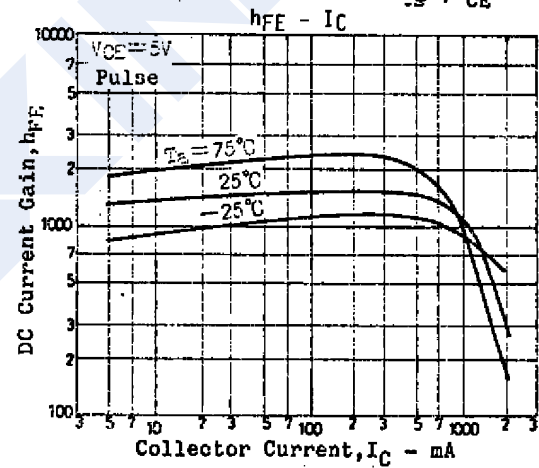
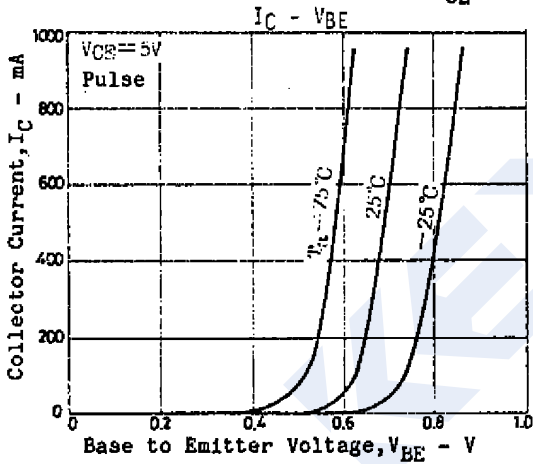
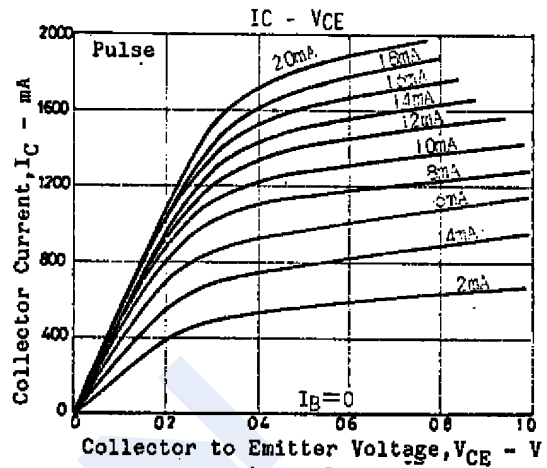
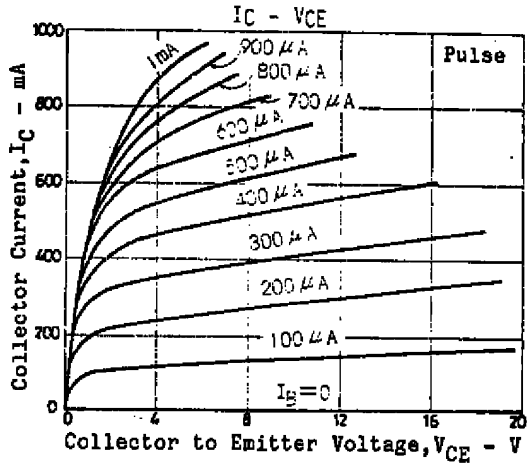
#### ■ Marking

Marking	CF
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NPN Transistors

2SC3650

■ Typical Characteristics



### NPN Transistors

### 2SC3650

■ Typical Characteristics

