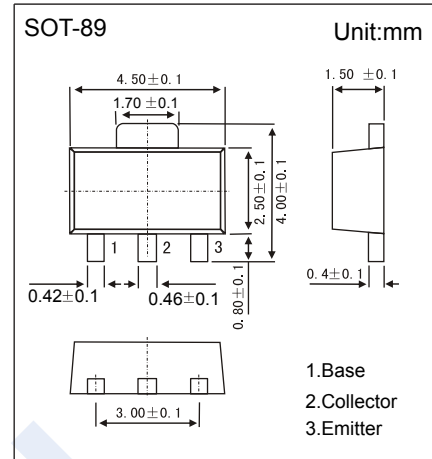


NPN Transistors

2SD1620

■ Features

- Collector Current Capability $I_C=3A$
- Collector Emitter Voltage $V_{CE0}=10V$



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

Parameter	Symbol	Rating	Unit
Collector - Base Voltage	V_{CBO}	30	V
Collector - Emitter Voltage	V_{CEX}	20	
Collector - Emitter Voltage	V_{CEO}	10	
Emitter - Base Voltage	V_{EBO}	6	
Collector Current - Continuous	I_C	3	A
Collector Current - Pulse	I_{CP}	5	
Collector Power Dissipation (Note.1)	P_C	0.5	W
		1.3	
Junction Temperature	T_J	150	$^\circ\text{C}$
Storage Temperature Range	T_{stg}	-55 to 150	

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

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

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector- base breakdown voltage	V_{CBO}	$I_C = 100 \mu\text{A}, I_E = 0$	30			V
Collector- emitter breakdown voltage	V_{CEX}	$I_C = 1 \text{mA}, V_{BE} = 3\text{V}$	20			
Collector- emitter breakdown voltage	V_{CEO}	$I_C = 1 \text{mA}, R_{BE} = \infty$	10			
Emitter - base breakdown voltage	V_{EBO}	$I_E = 100 \mu\text{A}, I_C = 0$	6			
Collector-base cut-off current	I_{CBO}	$V_{CB} = 20 \text{V}, I_E = 0$			0.1	μA
Emitter cut-off current	I_{EBO}	$V_{EB} = 4 \text{V}, I_C = 0$			0.1	
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C = 3 \text{A}, I_B = 60\text{mA}$			0.4	V
Base - emitter saturation voltage	$V_{BE(sat)}$	$I_C = 3 \text{A}, I_B = 60\text{mA}$			1.2	
DC current gain	h_{FE}	$V_{CE} = 2\text{V}, I_C = 3 \text{A}$	140			
Collector output capacitance	C_{ob}	$V_{CB} = 10\text{V}, f = 1\text{MHz}$		30		pF
Transition frequency	f_T	$V_{CE} = 10\text{V}, I_C = 50\text{mA}$		200		MHz

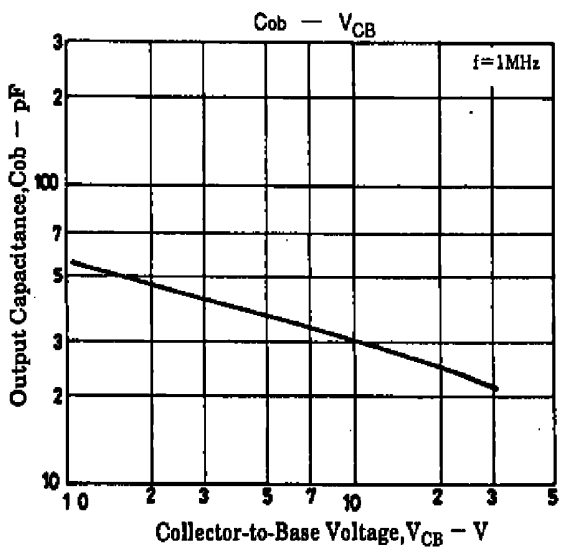
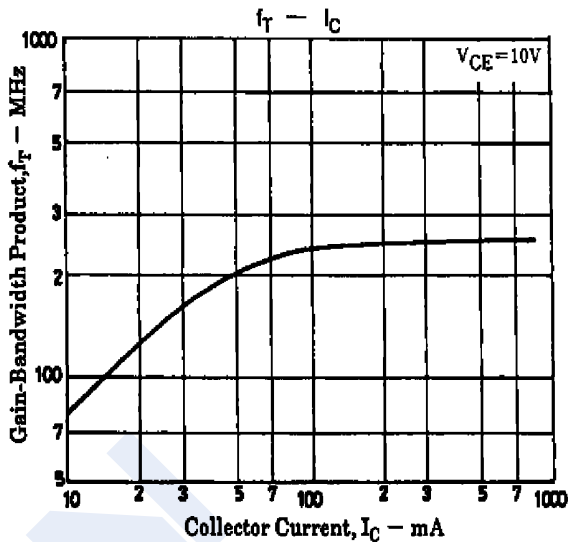
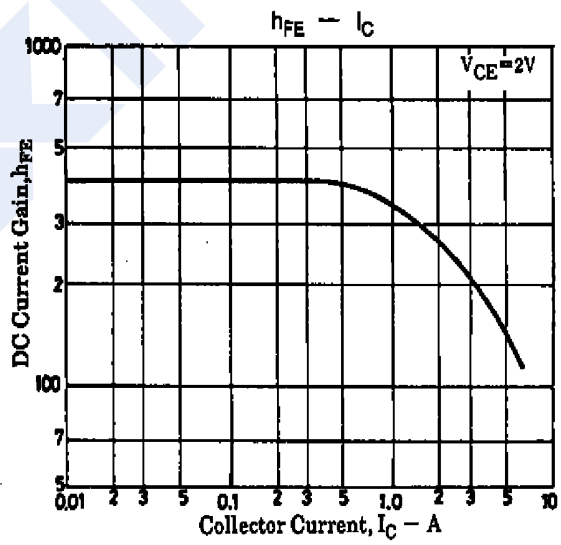
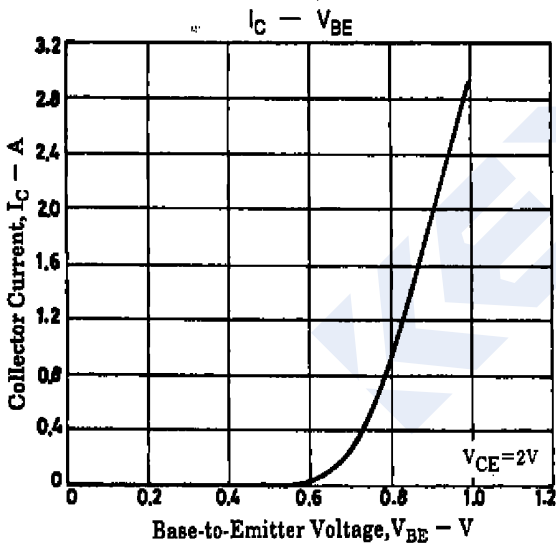
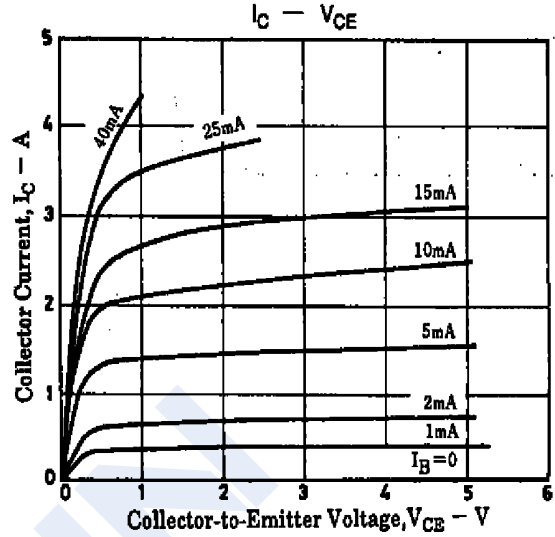
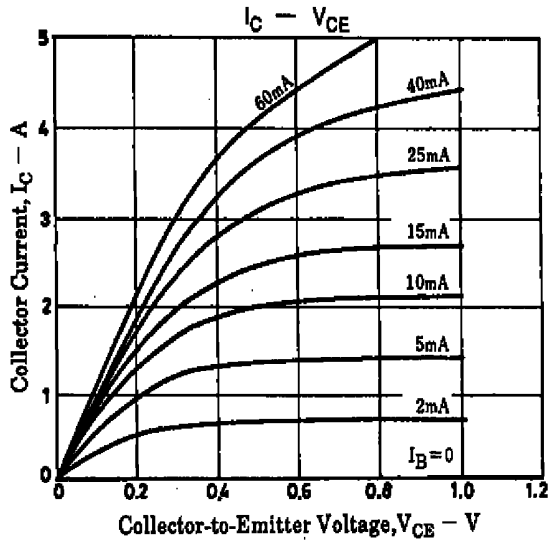
■ Marking

Marking	DC
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■ Typical Characteristics



NPN Transistors

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■ Typical Characteristics

