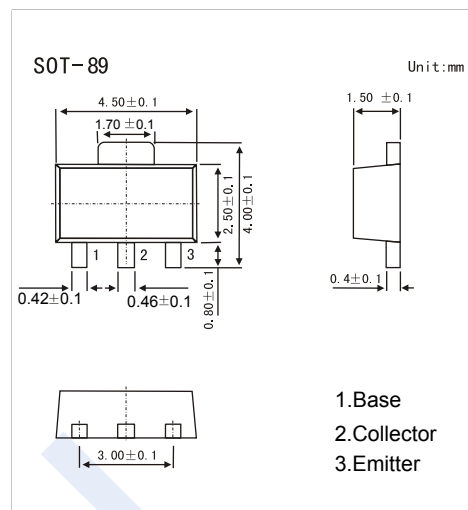


NPN Transistors

2SD1280-HF

■ Features

- Satisfactory operation performances at high efficiency with the low-voltage power supply.
- Low collector to emitter saturation voltage $V_{CE(sat)}$
- Complementary to 2SB956-HF
- Pb-Free Package May be Available. The G-Suffix Denotes a Pb-Free Lead Finish

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

Parameter	Symbol	Rating	Unit
Collector - Base Voltage	V_{CB0}	20	V
Collector - Emitter Voltage	V_{CEO}	20	
Emitter - Base Voltage	V_{EB0}	5	
Collector Current - Continuous	I_C	1	A
Collector Current - Pulse	I_{CP}	2	
Collector Power Dissipation	P_C	1	
Junction Temperature	T_J	150	$^\circ\text{C}$
Storage Temperature Range	T_{stg}	-55 to 150	

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

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	V_{CB0}	$I_C = 100 \mu\text{A}$, $I_E = 0$	20			V
Collector-emitter breakdown voltage	V_{CEO}	$I_C = 1 \text{ mA}$, $I_B = 0$	20			
Emitter - base breakdown voltage	V_{EB0}	$I_E = 100 \mu\text{A}$, $I_C = 0$	5			
Collector-base cut-off current	I_{CB0}	$V_{CB} = 20 \text{ V}$, $I_E = 0$			1	μA
Emitter cut-off current	I_{EB0}	$V_{EB} = 5 \text{ V}$, $I_C = 0$			1	
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C = 1 \text{ A}$, $I_B = 50 \text{ mA}$			0.5	V
Base - emitter saturation voltage	$V_{BE(sat)}$	$I_C = 500 \text{ mA}$, $I_B = 50 \text{ mA}$			1.2	
DC current gain	$h_{FE(1)}$	$V_{CE} = 2 \text{ V}$, $I_C = 500 \text{ mA}$	90	150	360	
	$h_{FE(2)}$	$V_{CE} = 2 \text{ V}$, $I_C = 1.5 \text{ A}$	50	100		
Collector output capacitance	C_{ob}	$V_{CB} = 6 \text{ V}$, $I_E = 0$, $f = 1 \text{ MHz}$		18		pF
Transition frequency	f_T	$V_{CE} = 6 \text{ V}$, $I_E = -50 \text{ mA}$, $f = 200 \text{ MHz}$		150		MHz

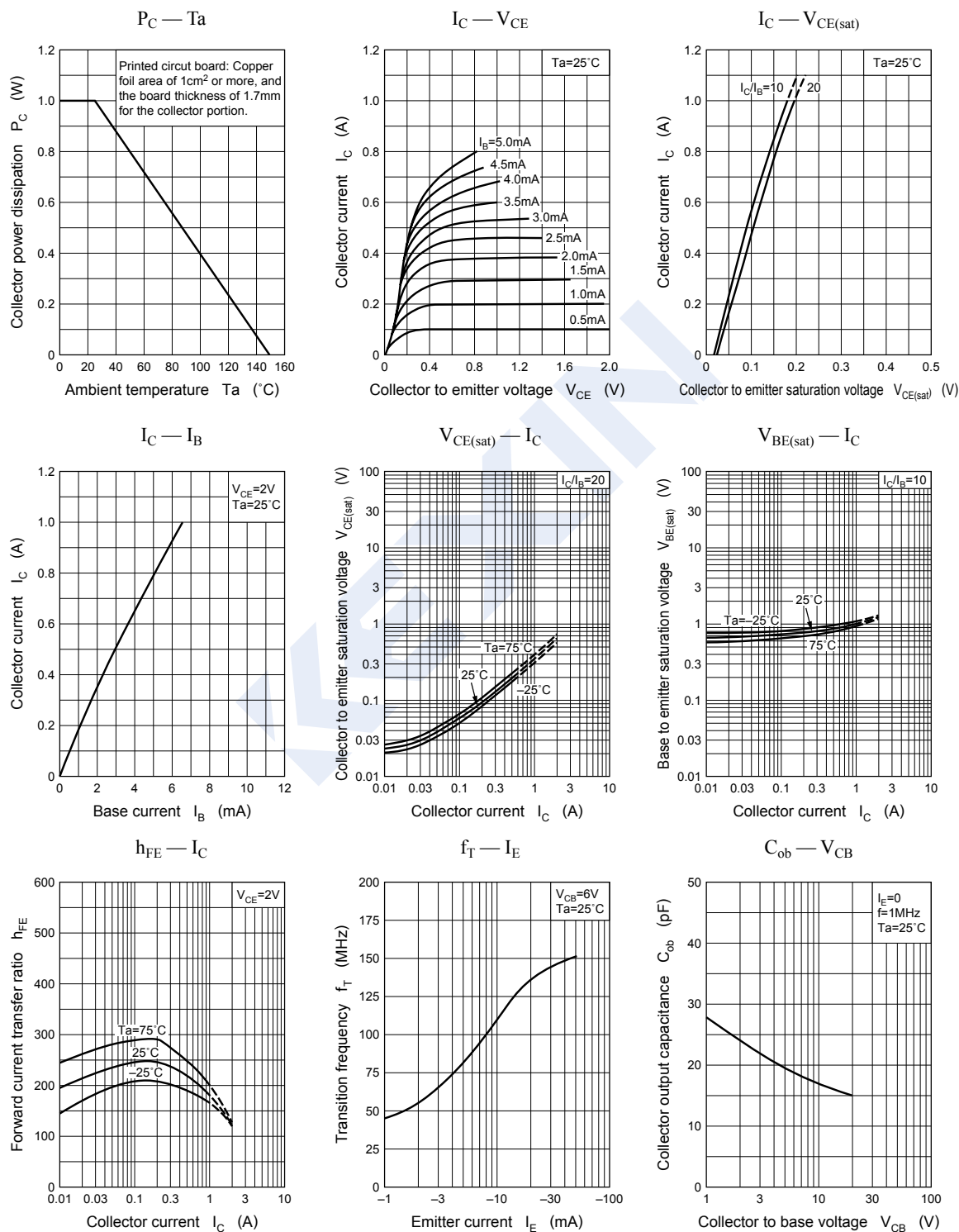
■ Classification of $h_{FE(1)}$

Type	2SD1280-Q-HF	2SD1280-R-HF	2SD1280-S-HF	2SD1280-T-HF
Range	90-155	130-210	180-280	250-360
Marking	RQ _F	RR _F	RS _F	RT _F

NPN Transistors

2SD1280-HF

■ Typical Characteristics



NPN Transistors

2SD1280-HF

■ Typical Characteristics

