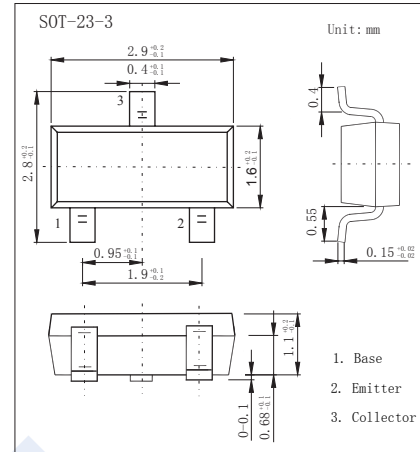


NPN Transistors

2SC2295-HF

■ Features

- High transition frequency f_t .
- Complementary to 2SA1022-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}	30	V
Collector - Emitter Voltage	V_{CEO}	20	
Emitter - Base Voltage	V_{EBO}	5	
Collector Current - Continuous	I_C	30	mA
Collector Power Dissipation	P_C	200	mW
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}	$I_C = 100 \mu\text{A}, I_E = 0$	30			V
Collector-emitter breakdown voltage	V_{CEO}	$I_C = 1 \text{ mA}, I_B = 0$	20			
Emitter - base breakdown voltage	V_{EBO}	$I_E = 100 \mu\text{A}, I_C = 0$	5			
Collector-base cut-off current	I_{CB0}	$V_{CB} = 30 \text{ V}, I_E = 0$			100	nA
Emitter cut-off current	I_{EBO}	$V_{EB} = 5 \text{ V}, I_C = 0$			100	
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C = -10 \text{ mA}, I_B = 1 \text{ mA}$			0.2	V
Base - emitter saturation voltage	$V_{BE(sat)}$	$I_C = -10 \text{ mA}, I_B = 1 \text{ mA}$			1.2	
DC current gain	h_{FE}	$V_{CE} = -10 \text{ V}, I_C = -1 \text{ mA}$	70		220	
Noise figure	NF	$V_{CB} = 10 \text{ V}, I_E = -1 \text{ mA}, f = 5 \text{ MHz}$		2.8	4	dB
Reverse transfer impedance	Z_{rd}	$V_{CB} = 10 \text{ V}, I_E = -1 \text{ mA}, f = 2 \text{ MHz}$		22	50	Ω
Common emitter reverse transfer capacitance	C_{re}	$V_{CE} = 10 \text{ V}, I_C = 1 \text{ mA}, f = 10.7 \text{ MHz}$			1.5	pF
Transition frequency	f_t	$V_{CB} = 10 \text{ V}, I_E = -1 \text{ mA}, f = 200 \text{ MHz}$	150	250		MHz

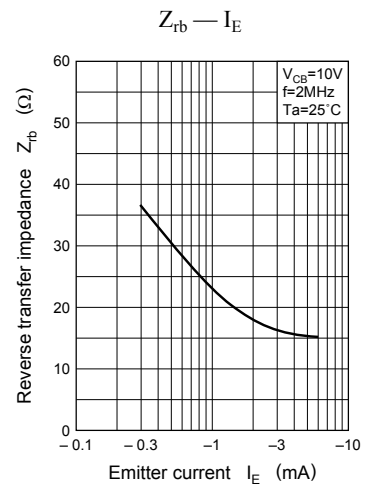
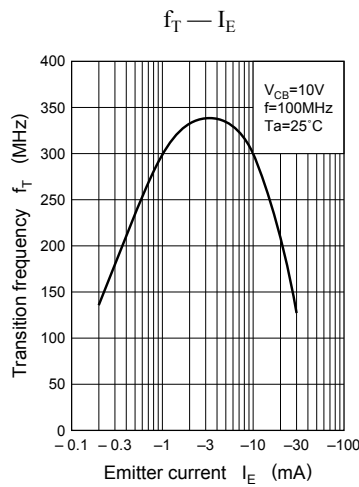
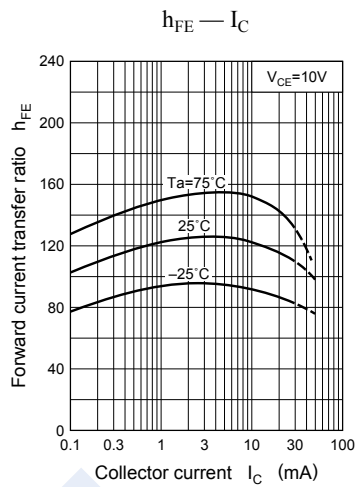
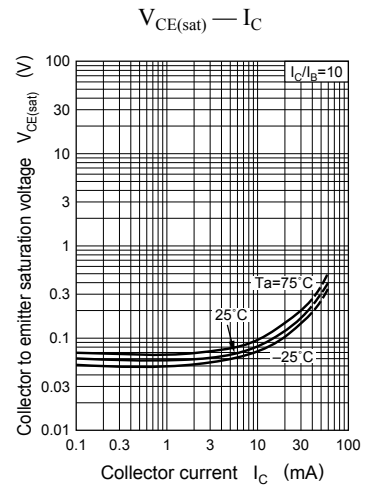
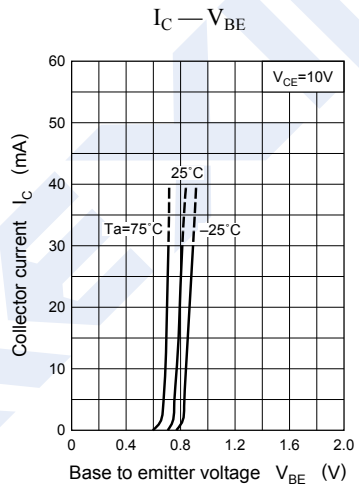
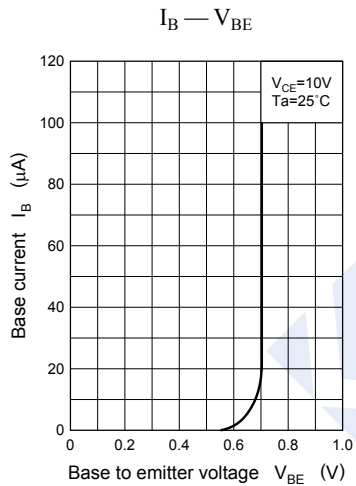
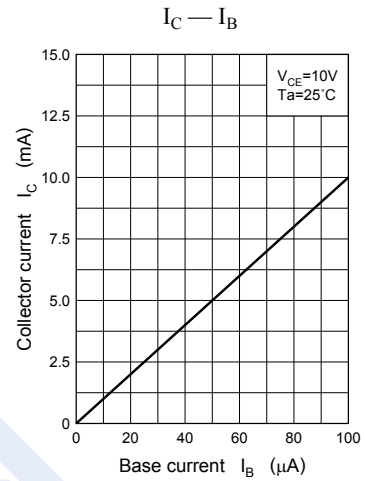
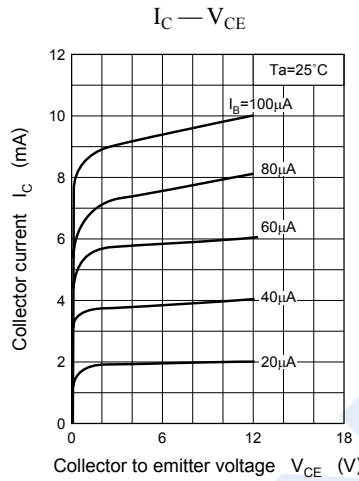
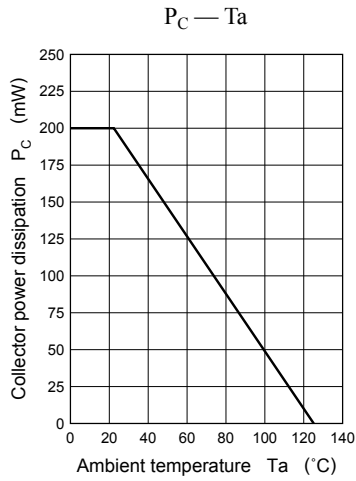
■ Classification of h_{FE}

Type	2SC2295-B-HF	2SC2295-C-HF
Range	70-140	110-220
Marking	$V_B F$	$V_C F$

NPN Transistors

2SC2295-HF

■ Typical Characteristics



NPN Transistors

2SC2295-HF

■ Typical Characteristics

