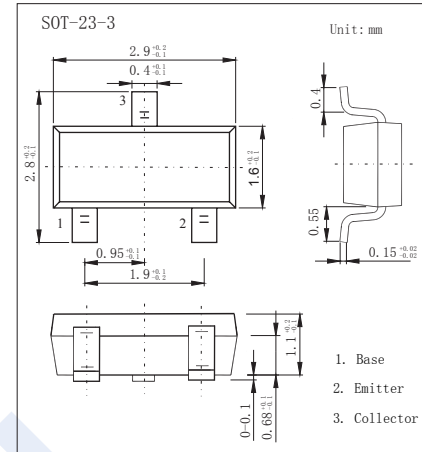


PNP Transistors

2SA1815-HF

■ Features

- High power gain : PG=25dB (f=100MHz).
- High cutoff frequency ; f_T=750MHz typ.
- Low collector-to-emitter saturation voltage.
- Complementary pair with the 2SC4432-HF.
- Pb-Free Package May be Available. The G-Suffix Denotes a Pb-Free Lead Finish



■ Absolute Maximum Ratings Ta = 25°C

Parameter	Symbol	Rating	Unit
Collector - Base Voltage	V _{CB0}	-15	V
Collector - Emitter Voltage	V _{CEO}	-12	
Emitter - Base Voltage	V _{EB0}	-3	
Collector Current - Continuous	I _c	-50	mA
Collector Power Dissipation	P _c	250	mW
Junction Temperature	T _J	150	°C
Storage Temperature range	T _{stg}	-55 to 150	

■ Electrical Characteristics Ta = 25°C

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector- base breakdown voltage	V _{CB0}	I _c = -100 μA, I _E =0	-15			V
Collector- emitter breakdown voltage	V _{CEO}	I _c = -1 mA, I _B =0	-12			
Emitter - base breakdown voltage	V _{EB0}	I _E = -100 μA, I _c =0	-3			
Collector-base cut-off current	I _{CB0}	V _{CB} = -12 V, I _E =0			-100	nA
Emitter cut-off current	I _{EB0}	V _{EB} = -2V, I _c =0			-100	
Collector-emitter saturation voltage	V _{CE(sat)}	I _c =-10mA, I _B =-1mA		-0.1	-0.3	V
Base - emitter saturation voltage	V _{BE(sat)}	I _c =-10mA, I _B =-1mA			-1.2	
DC current gain	h _{FE}	V _{CE} = -10V, I _c = -5mA	60		270	
Power Gain	PG	V _{CE} = -10V, I _c = -10mA, f=100MHz		25		dB
Collector output capacitance	C _{ob}	V _{CB} = -10V, I _E = 0, f=1MHz		1.2	1.6	pF
Reverse Transfer Capacitance	C _{re}	V _{CB} = -10V, I _E = 0, f=1MHz		0.9		
Transition frequency	f _T	V _{CE} = -10V, I _c = -5mA		750		MHz

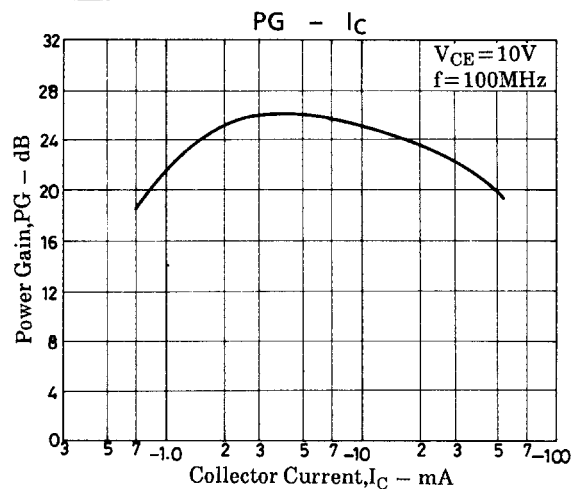
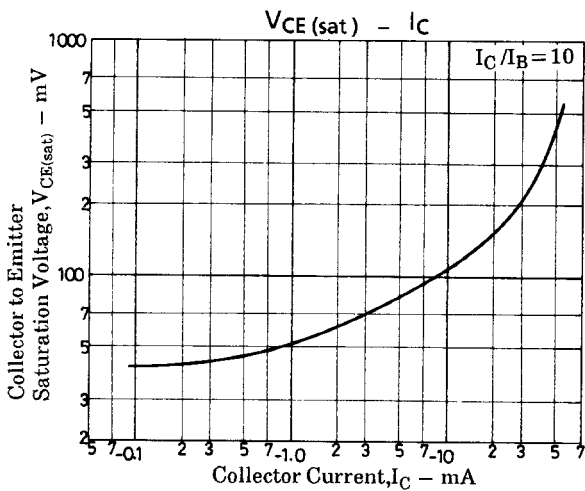
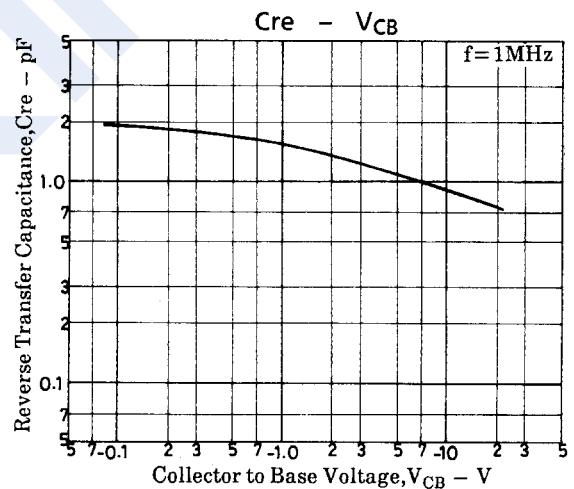
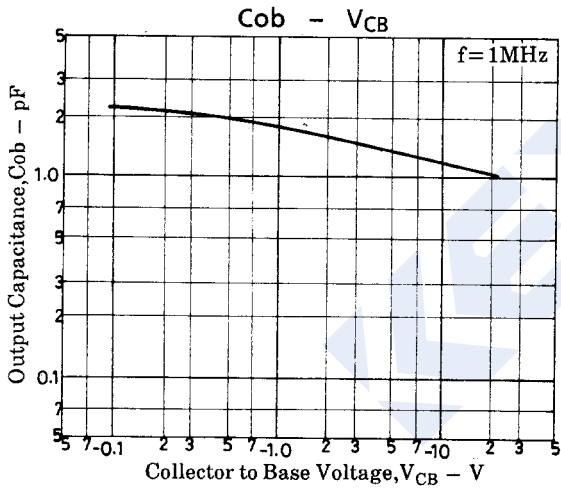
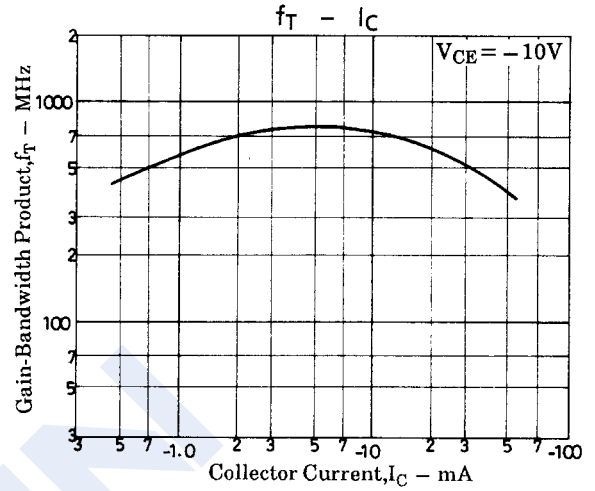
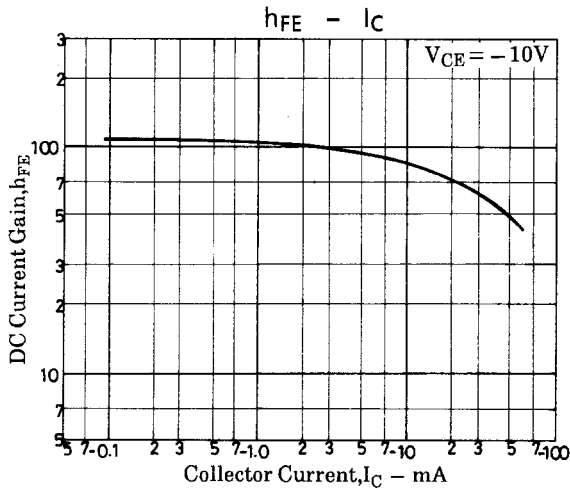
■ Classification of h_{FE}

Type	2SA1815-JS3-HF	2SA1815-JS4-HF	2SA1815-JS5-HF
Range	60-120	90-180	135-270
Marking	JS3 _F	JS4 _F	JS5 _F

PNP Transistors

2SA1815-HF

■ Typical Characteristics



PNP Transistors

2SA1815-HF

■ Typical Characteristics

