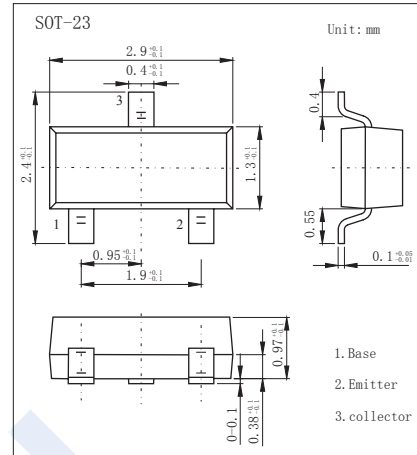


PNP Transistors

2SA1461-HF

■ Features

- High speed switching
- High gain bandwidth product
- Complementary to 2SC3734-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}	-40	V
Collector - Emitter Voltage	V_{CE0}	-40	
Emitter - Base Voltage	V_{EB0}	-5	
Collector Current - Continuous	I_C	-200	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}	$I_C = -100 \mu\text{A}$, $I_E = 0$	-40			V
Collector-emitter breakdown voltage	V_{CE0}	$I_C = -1 \text{ mA}$, $I_B = 0$	-40			
Emitter - base breakdown voltage	V_{EB0}	$I_E = -100 \mu\text{A}$, $I_C = 0$	-5			
Collector-base cut-off current	I_{CBO}	$V_{CB} = -30 \text{ V}$, $I_E = 0$			-0.1	μA
Emitter cut-off current	I_{EBO}	$V_{EB} = -4 \text{ V}$, $I_C = 0$			-0.1	
Collector-emitter saturation voltage *	$V_{CE(sat)}$	$I_C = -50 \text{ mA}$, $I_B = -5 \text{ mA}$		-0.1	-0.4	V
Base - emitter saturation voltage *	$V_{BE(sat)}$	$I_C = -50 \text{ mA}$, $I_B = -5 \text{ mA}$		-0.8	-0.95	
DC current gain *	$h_{FE(1)}$	$V_{CE} = -1 \text{ V}$, $I_C = -10 \text{ mA}$	75	180	300	
	$h_{FE(2)}$	$V_{CE} = -10 \text{ V}$, $I_C = -100 \text{ mA}$	25	100		
Turn-on time	t_{on}	$V_{CC} = -3 \text{ V}$, $I_C = -10 \text{ mA}$, $I_{B1} = -I_{B2} = -1 \text{ mA}$			70	ns
Storage time	t_{stg}				110	
Turn-off time	t_{off}				300	
Collector output capacitance	C_{ob}	$V_{CB} = -5 \text{ V}$, $I_E = 0$, $f = 1 \text{ MHz}$		2.5	4.5	pF
Transition frequency	f_T	$V_{CE} = -20 \text{ V}$, $I_E = 10 \text{ mA}$	200	510		MHz

* : Pulsed: $PW \leq 350 \mu\text{s}$, Duty Cycle $\leq 2\%$

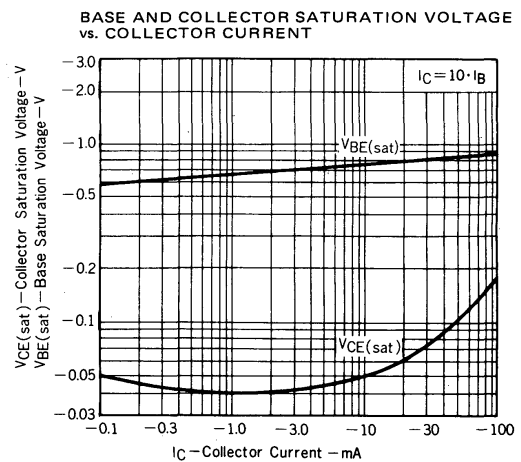
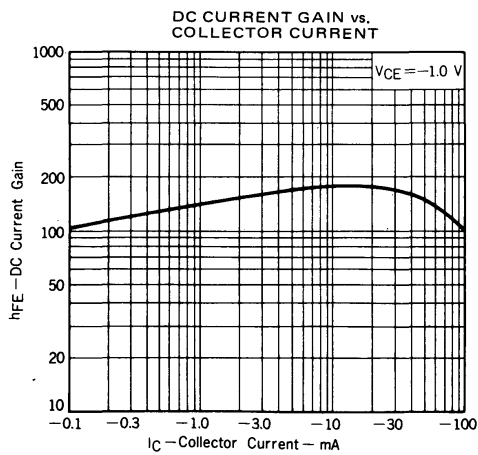
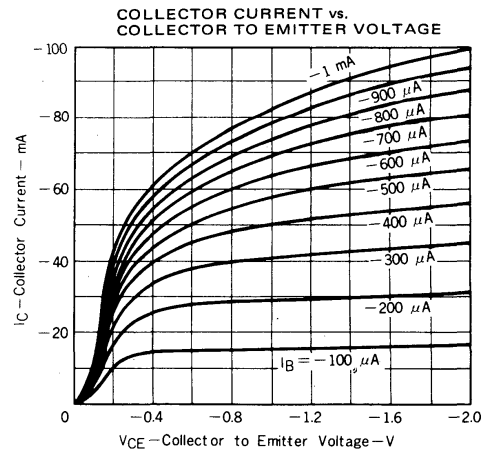
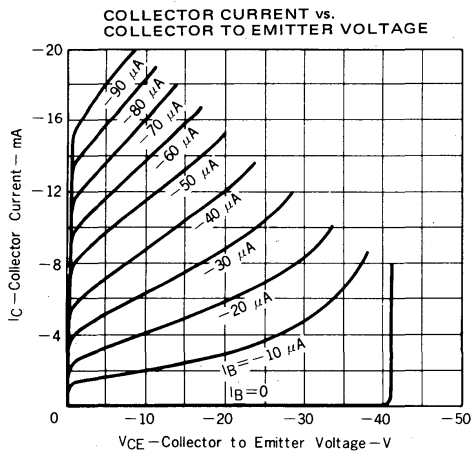
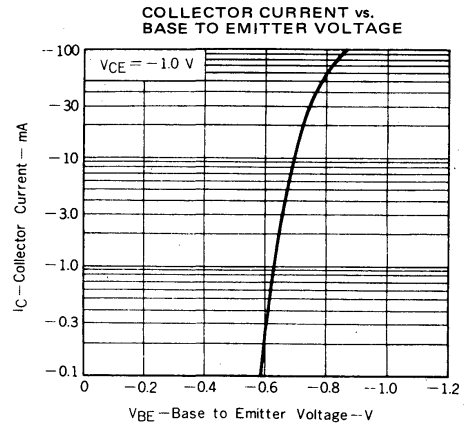
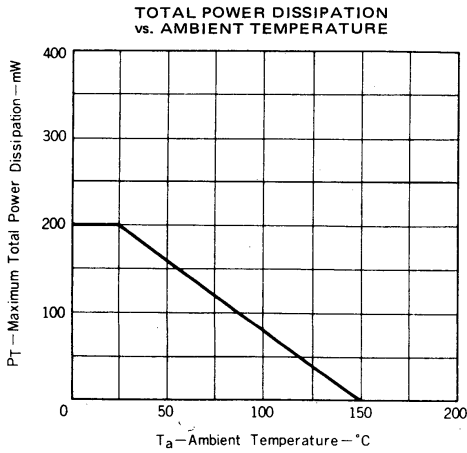
■ Classification of $h_{FE(1)}$

Type	2SA1461-Y22-HF	2SA1461-Y23-HF	2SA1461-Y24-HF
Range	75-150	100-200	150-300
Marking	Y22 _F	Y23 _F	Y24 _F

PNP Transistors

2SA1461-HF

■ Typical Characteristics



PNP Transistors

2SA1461-HF

■ Typical Characteristics

