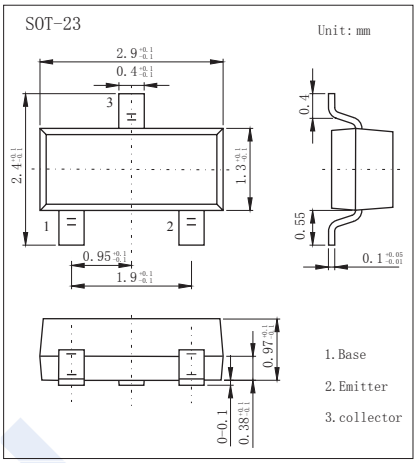
PNP Transistors

2SA1464-HF



■ Features

- High fT : fT =400MHz
- Complementary to 2SC3739-HF
- Pb−Free Package May be Available. The G−Suffix Denotes a Pb−Free Lead Finish

■ Absolute Maximum Ratings Ta = 25℃

Parameter	Symbol	Rating	Unit
Collector - Base Voltage	V_{CBO}	-60	V
Collector - Emitter Voltage	V_{CEO}	-40	
Emitter - Base Voltage	V_{EBO}	-5	
Collector Current - Continuous	I_C	-500	mA
Collector Power Dissipation	P_C	200	mW
Junction Temperature	T_J	150	℃
Storage Temperature range	T_{stg}	-55 to 150	

■ Electrical Characteristics Ta = 25℃

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector- base breakdown voltage	V_{CBO}	I_C= -100 μA, I_E=0	-60			V
Collector- emitter breakdown voltage	V_{CEO}	I_C= -1 mA, I_B=0	-40			
Emitter - base breakdown voltage	V_{EBO}	I_E= -100 μ A, I_C=0	-5			
Collector-base cut-off current	I_{CBO}	V_{CB}= -40 V , I_E=0			-0.1	uA
Emitter cut-off current	I_{EBO}	V_{EB}= -4V , I_C=0			-0.1	
Collector-emitter saturation voltage *	$V_{CE(sat)}$	I_C=-500 mA, I_B=-50 mA		-0.45	-0.75	V
Base - emitter saturation voltage *	$V_{BE(sat)}$	I_C=-500 mA, I_B=-50 mA		-1	-1.3	
DC current gain *	$h_{FE(1)}$	V_{CE}= -2V, I_C= -150mA	75	140	300	
	$h_{FE(2)}$	V_{CE}=- 2V, I_C= -500mA	20	50		
Turn-on time	t_{on}	V_{CC}=-30V I_C= -150mA, I_{B1}=-I_{B2}= -15mA			35	ns
Storage time	t_{stg}				225	
Turn -off time	t_{off}				255	
Collector output capacitance	C_{ob}	V_{CB}= -10V, I_E= 0,f=1MHz		5	8	pF
Transition frequency	f_T	V_{CE}= -10V, I_E= 20mA	150	400		MHz

* : Pulsed:PW ⩽ 350us,Duty Cycle ⩽ 2%

■ Classification of $h_{fe(1)}$

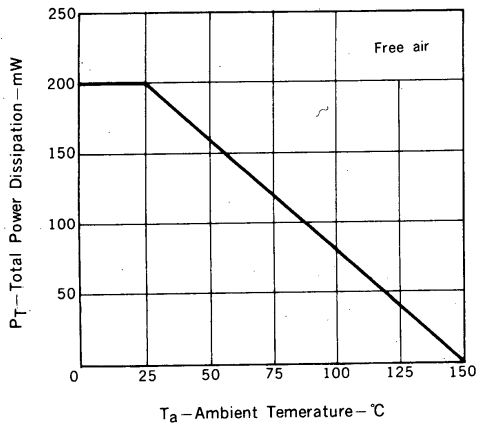
Type	2SA1464-Y12-HF	2SA1464-Y13-HF	2SA1464-Y14-HF
Range	75-150	100-200	150-300
Marking	Y12 F	Y13 F	Y14 F

PNP Transistors

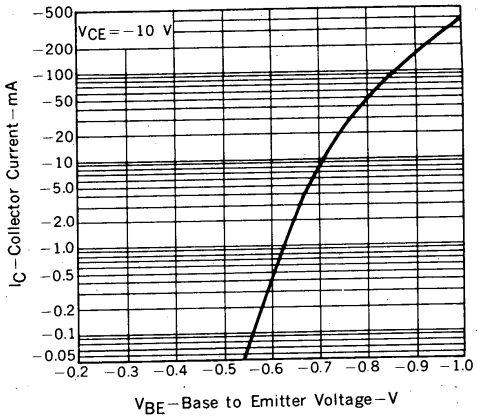
2SA1464-HF

■ Typical Characterisitics

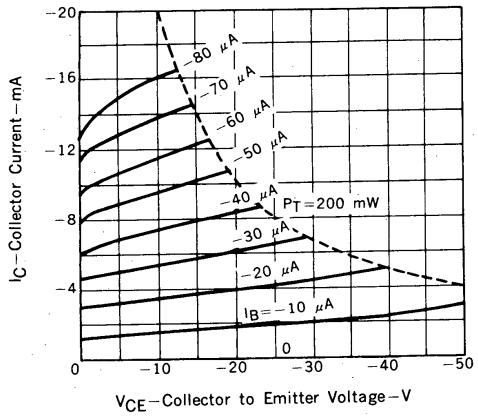
TOTAL POWER DISSIPATION vs. AMBIENT TEMPERATURE



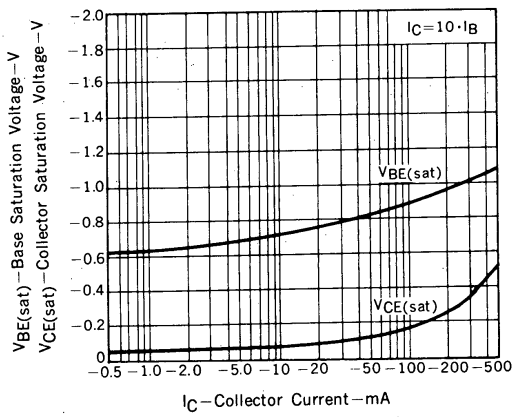
COLLECTOR CURRENT vs. BASE TO EMITTER VOLTAGE



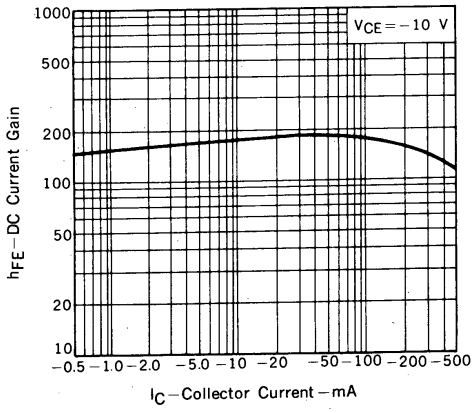
COLLECTOR CURRENT vs. COLLECTOR TO EMITTER VOLTAGE



COLLECTOR AND BASE SATURATION VOLTAGE vs. COLLECTOR CURRENT



DC CURRENT GAIN vs. COLLECTOR CURRENT

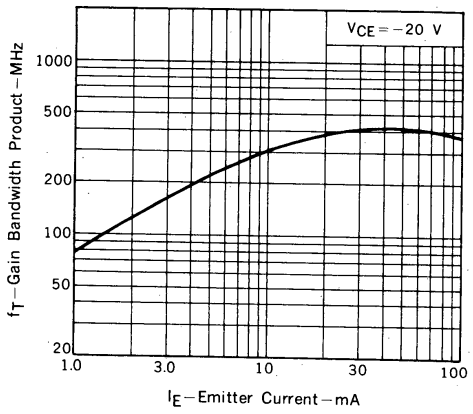


PNP Transistors

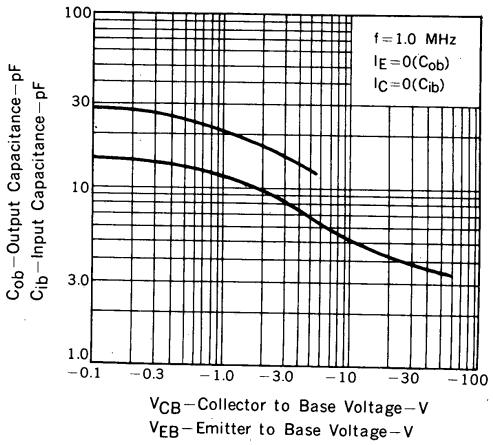
2SA1464-HF

■ Typical Characterisitics

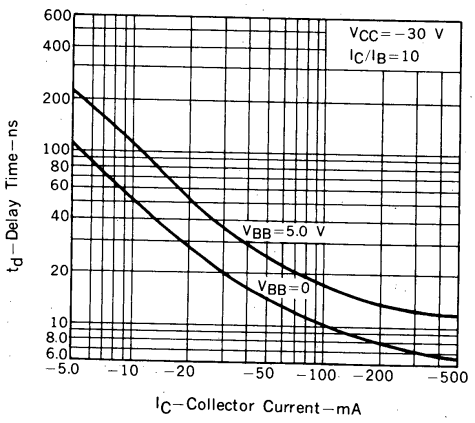
GAIN BANDWIDTH PRODUCT vs. EMITTER CURRENT



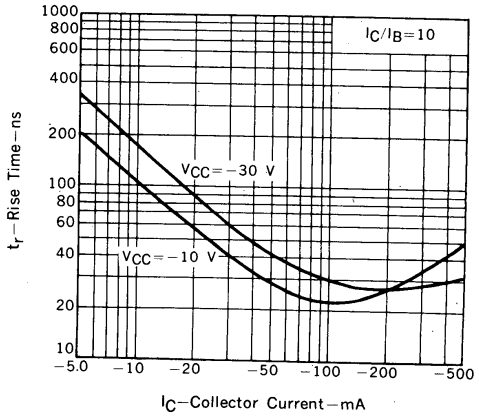
INPUT AND OUTPUT CAPACITANCE vs. REVERSE VOLTAGE



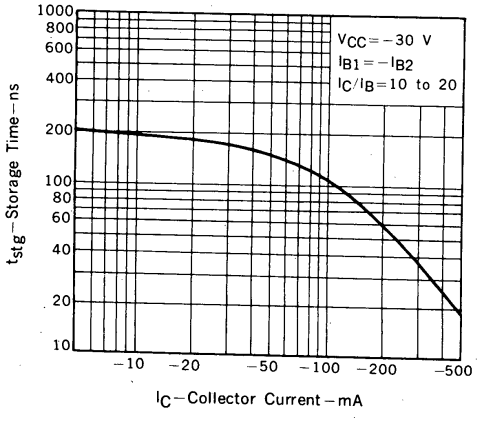
DELAY TIME vs. COLLECTOR CURRENT



RISE TIME vs. COLLECTOR CURRENT



STORAGE TIME vs. COLLECTOR CURRENT



FALL TIME vs. COLLECTOR CURRENT