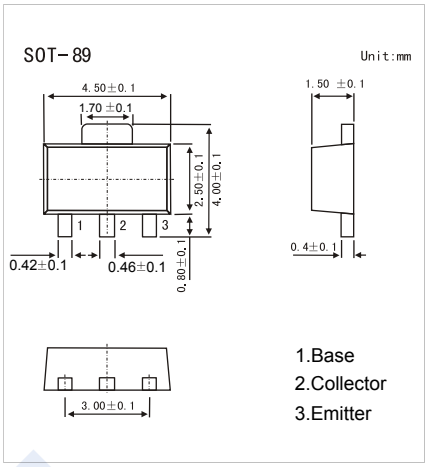
PNP Transistors

2SA1463-HF



■ Features

- ● High speed ,high voltage switching
- ● Low collector saturaton voltage
- ● Complementary to 2SC3736-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}	-45	
Emitter - Base Voltage	V_{EBO}	-5	
Collector Current - Continuous	I_C	-1	A
Collector Current - Pulse *	I_{CP}	-2	
Collector Power Dissipation	P_C	2	W
Junction Temperature	T_J	150	℃
Storage Temperature range	T_{stg}	-55 to 150	

* : Pulsed:PW ≤ 10ms,Duty Cycle ≤ 50%

■ 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	-45			
Emitter - base breakdown voltage	V_{EBO}	I_E= -100 μA, I_C=0	-5			
Collector-base cut-off current	I_{CBO}	V_{CB}= -60 V , I_E=0			-0.5	uA
Emitter cut-off current	I_{EBO}	V_{EB}= -4V , I_C=0			-0.5	
Collector-emitter saturation voltage *	$V_{CE(sat)}$	I_C=-500 mA, I_B=-50 mA		-0.26	-0.6	V
Base - emitter saturation voltage *	$V_{BE(sat)}$	I_C=-500 mA, I_B=-50 mA		-0.98	-1.2	
DC current gain *	$h_{FE(1)}$	V_{CE}= -10V, I_C= -50mA	60		200	
	$h_{FE(2)}$	V_{CE}=- 10V, I_C= -500mA	60			
Turn-on time	t_{on}	I_C=-500mA,I_{B1}=-I_{B2}=-50mA		25	40	ns
Storage time	t_{stg}			46	70	
Turn -off time	t_{off}			62	100	
Collector output capacitance	C_{ob}	V_{CB}= -10V, I_E= 0,f=1MHz		11	25	pF
Transition frequency	f_T	V_{CE}= -10V, I_E= 100mA	300	400		MHz

* : Pulsed:PW ≤ 350us,Duty Cycle ≤ 2%

■ Classification of $h_{fe(1)}$

Type	2SA1463-L-HF	2SA1463-K-HF
Range	60-120	100-200
Marking	IL F	IK F

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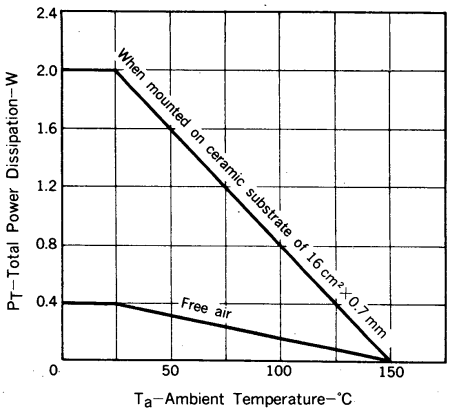
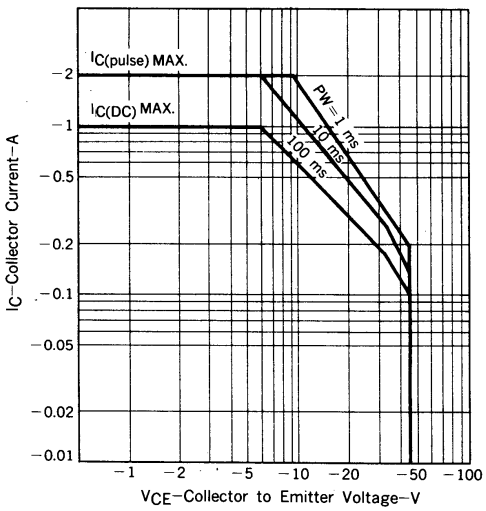
■ Typical Characterisitics

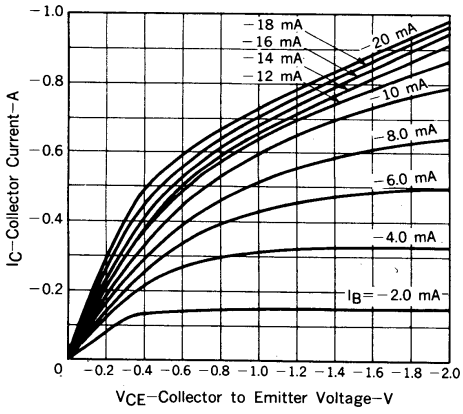
TOTAL POWER DISSIPATION vs. AMBIENT TEMPERATURE



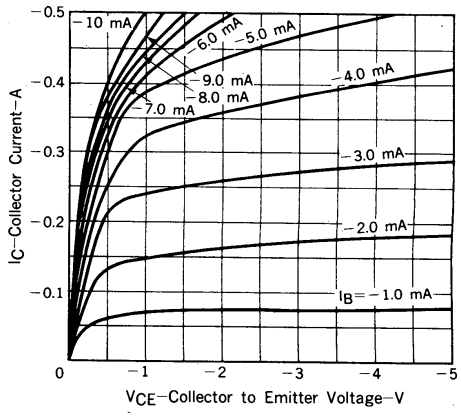
SAFE OPERATING AREA (TRANSIENT THERMAL RESISTANCE METHOD)



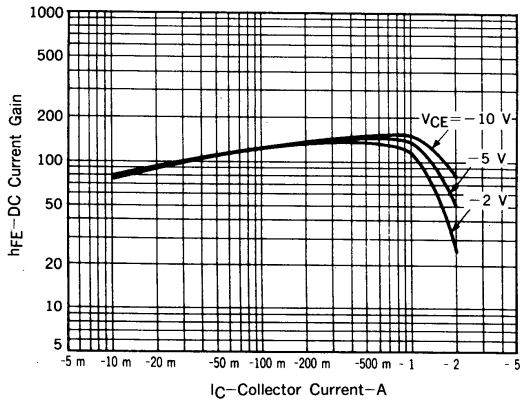
COLLECTOR CURRENT vs. COLLECTOR TO EMITTER VOLTAGE



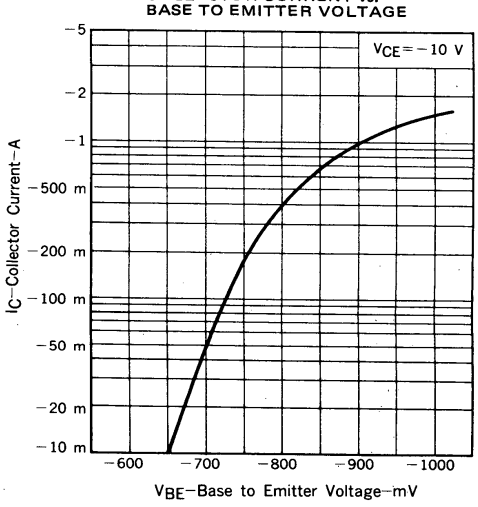
COLLECTOR CURRENT vs. COLLECTOR TO EMITTER VOLTAGE



DC CURRENT GAIN vs. COLLECTOR CURRENT



COLLECTOR CURRENT vs. BASE TO EMITTER VOLTAGE



PNP Transistors

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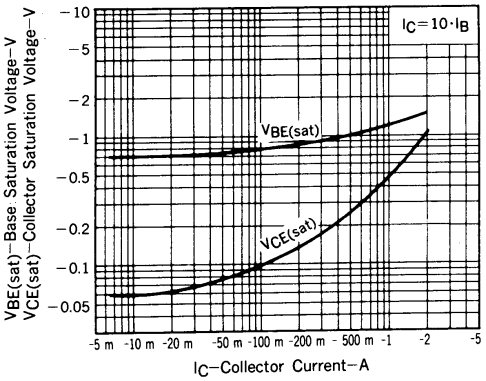
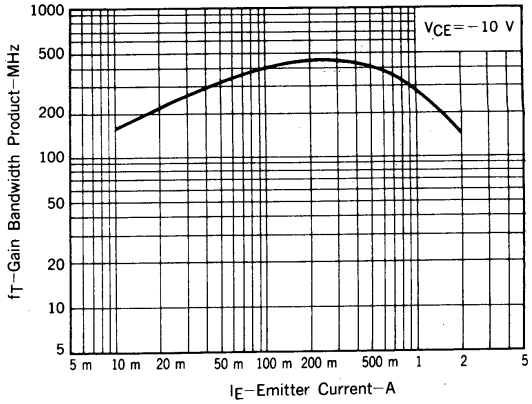
■ Typical Characterisitics

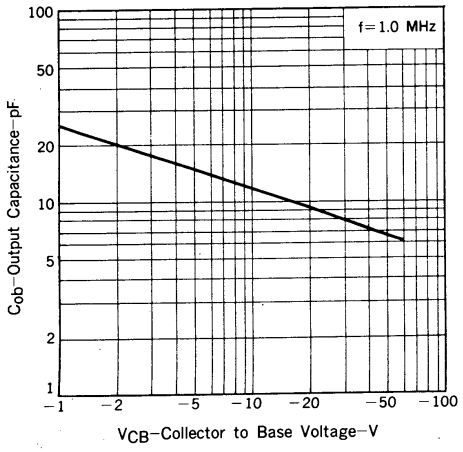
BASE AND COLLECTOR SATURATION VOLTAGE vs.COLLECTOR CURRENT



GAIN BANDWIDTH PRODUCT vs. EMITTER CURRENT



OUTPUT CAPACITANCE vs. REVERSE VOLTAGE



SWITCHING TIME vs. COLLECTOR CURRENT