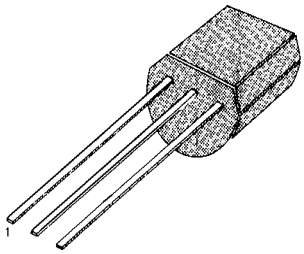
SWITCHING AND AMPLIFIER APPLICATIONS

- Suitable for AF-Driver stages and low power output stages
- Complement to BC337/BC338

TO-92



1. Collector 2. Base 3. Emitter

ABSOLUTE MAXIMUM RATINGS (T_A=25°C)

Characteristic	Symbol	Rating	Unit
Collector-Emitter Voltage	V_{CES}		
: BC327		-50	V
: BC328		-30	V
Collector-Emitter Voltage	V_{CEO}		
: BC327		-45	V
: BC328		-25	V
Emitter-Base Voltage	V_{EBO}	-5	V
Collector Current (DC)	I_C	-800	mA
Collector Dissipation	P_C	625	mW
Junction Temperature	T_J	150	°C
Storage Temperature	T_{STG}	-55 ~ 150	°C

ELECTRICAL CHARACTERISTICS (T_A=25°C)

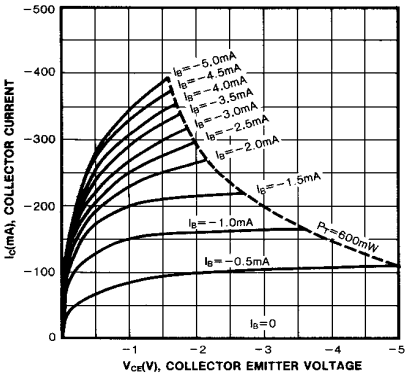
Characteristic	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector Emitter Breakdown Voltage	BV_{CEO}	I_C= -10mA, I_B=0				
: BC327			-45			V
: BC328			-25			V
Collector Emitter Breakdown Voltage	BV_{CES}	I_C= -0.1mA, I_B=0				
: BC327			-50			V
: BC328			-30			V
Emitter Base Breakdown Voltage	BV_{EBO}	I_E= -10mA, I_C=0	-5			V
Collector Cut-off Current	I_{CES}					
: BC307		V_{CE}= -45V, I_B=0		-2	-100	nA
: BC338		V_{CE}= -25V, I_B=0		-2	-100	nA
DC Current Gain	h_{FE}	V_{CE}= -1V, I_C= -100mA	100		630	
	$h_{FE}2$	V_{CE}= -1V, I_C= -30mA	60			
Collector-Emitter Saturation Voltage	V_{CE} (sat)	I_C= -500mA, I_B= -50mA			-0.7	V
Base Emitter On Voltage	V_{BE} (on)	V_{CE}= -1V, I_C= -300mA			-1.2	V
Current Gain Bandwidth Product	f_T	V_{CE}= -5V, I_C= -10mA		100		MHz
Collector Base Capacitance	C_{CBO}	V_{CB}= -10V, f=1MHz		12		pF

h_{FE} CLASSIFICATION

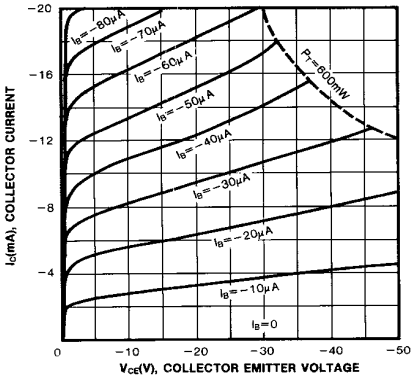
Classification	A	B	C
h_{FE}	100-250	160-400	250-630
h_{FE2}	60-	100-	170-

FAIRCHILD SEMICONDUCTOR™

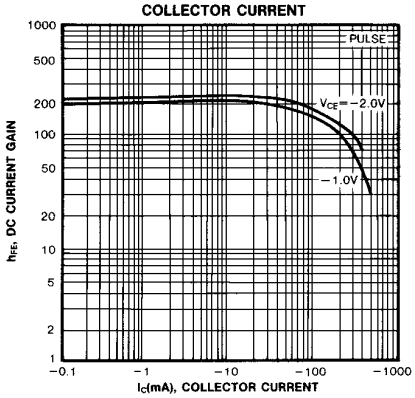
COLLECTOR CURRENT vs.
COLLECTOR EMITTER VOLTAGE



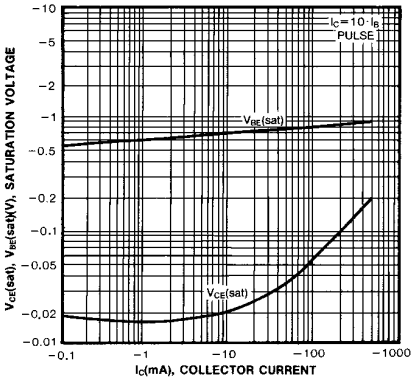
COLLECTOR CURRENT vs.
COLLECTOR EMITTER VOLTAGE



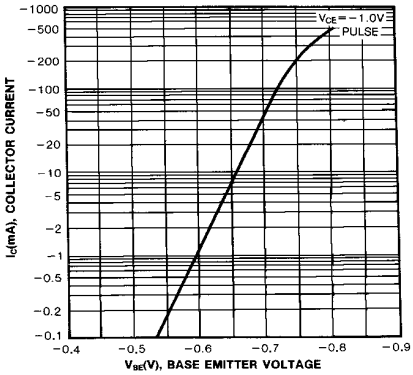
DC CURRENT GAIN vs.
COLLECTOR CURRENT



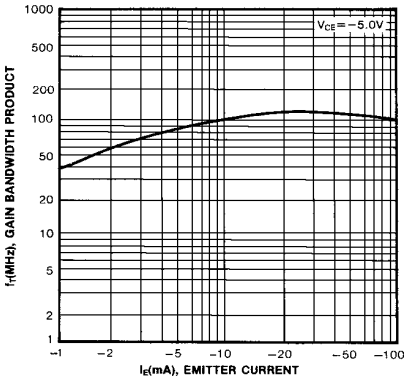
BASE AND COLLECTOR SATURATION
VOLTAGE vs. COLLECTOR CURRENT



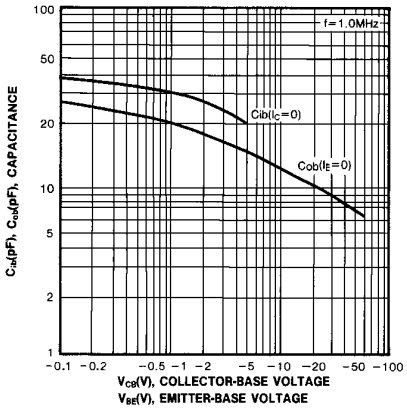
COLLECTOR CURRENT vs.
BASE EMITTER VOLTAGE



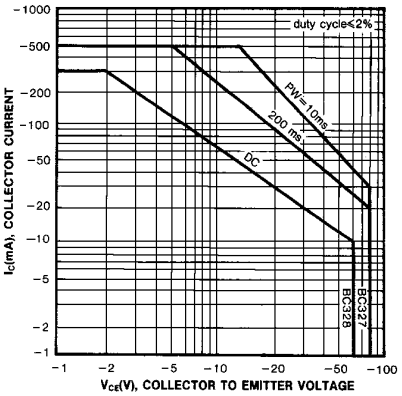
GAIN BANDWIDTH PRODUCT vs.
EMITTER CURRENT



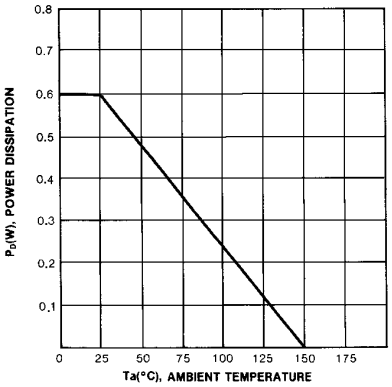
INPUT AND OUTPUT CAPACITANCE vs. REVERSE VOLTAGE



SAFE OPERATING AREA



POWER DERATING



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