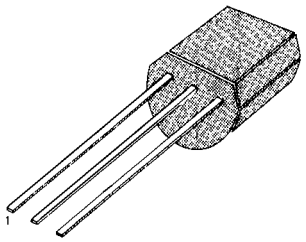
BC636/638/640 PNP EPITAXIAL SILICON TRANSISTOR

SWITCHING AND AMPLIFIER APPLICATIONS

- Complement to BC635/637/639

TO-92



1. Emitter 2. Collector 3. Base

ABSOLUTE MAXIMUM RATINGS (T_A=25°C)

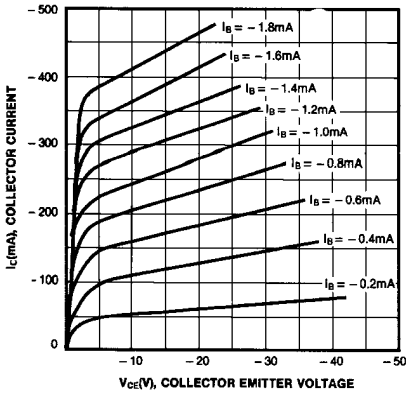
Characteristic		Symbol	Rating	Unit
Collector Emitter Voltage	: BC636	V_{CER}	-45	V
at R_{BE}=1Kohm	: BC638		-60	V
	: BC640		-100	V
Collector Emitter Voltage	: BC636	V_{CES}	-45	V
	: BC638		-60	V
	: BC640		-100	V
Collector Emitter Voltage	: BC636	V_{CEO}	-45	V
	: BC638		-60	V
	: BC640		-80	V
Emitter Base Voltage		V_{EBO}	-5	V
Collector Current		I_C	-1	A
Peak Collector Current		I_{CP}	-1.5	A
Base Current		I_B	-100	mA
Collector Dissipation		P_C	1	W
Junction Temperature		T_J	150	°C
Storage Temperature		T_{STG}	-65 ~ 150	°C

ELECTRICAL CHARACTERISTICS (T_A=25°C)

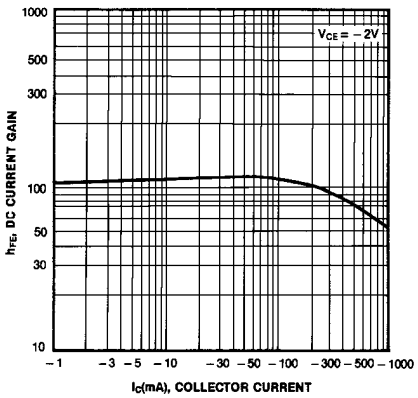
Characteristic	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector-Emitter Breakdown Voltage	BV_{CEO}	I_C= -10mA, I_B=0				
: BC636			-45			V
: BC638			-60			V
: BC640			-80			V
Collector Cut-off Current	I_{CBO}	V_{CB}= -30V, I_E=0			-0.1	µA
Emitter Cut-off Current	I_{EBO}	V_{EB}= -5V, I_C=0			-0.1	µA
DC Current Gain	h_{FE}	V_{CE}= -2V, I_C= -5mA	25			
: BC635		V_{CE}= -2V, I_C= -150mA	40		250	
: BC637/BC639			40		160	
		V_{CE}= -2V, I_C= -500mA	25			
Collector Emitter Saturation Voltage	V_{CE} (sat)	I_C= -500mA, I_B= -50mA			-0.5	V
Base Emitter On Voltage	V_{BE} (on)	V_{CE}= -2V, I_C= -500mA			-1	V
Current Gain Bandwidth Product	f_T	V_{CE}= -5V, I_C= -10mA, f=50MHz		100		MHz

FAIRCHILD SEMICONDUCTOR TM

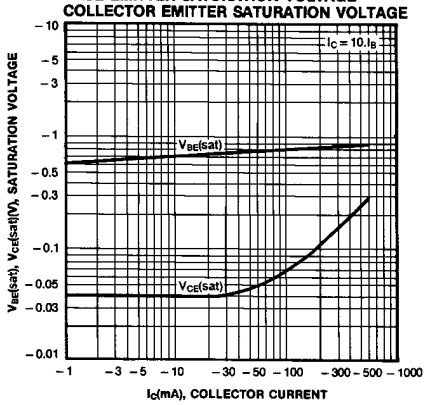
STATIC CHARACTERISTIC



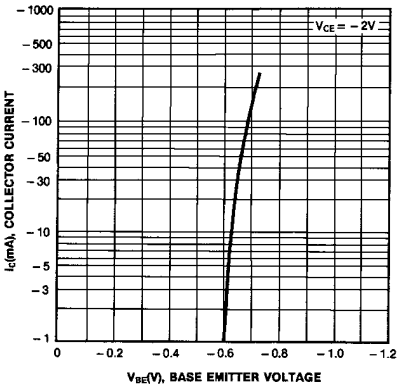
DC CURRENT GAIN



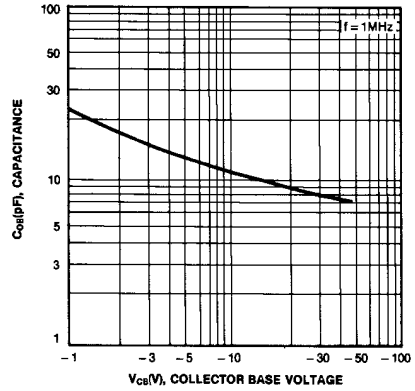
BASE EMITTER SATURATION VOLTAGE
COLLECTOR EMITTER SATURATION VOLTAGE



BASE EMITTER ON VOLTAGE



COLLECTOR OUTPUT CAPACITANCE



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