TIP30 SERIES
(TIP30/30A/30B/30C) PNP EPITAXIAL SILICON TRANSISTOR

MEDIUM POWER LINEAR SWITCHING APPLICATIONS

• Complement to TIP29/29A/29B/29C

ABSOLUTE MAXIMUM RATINGS

Characteristic	Symbol	Rating	Unit
Collector Base Voltage : TIP30	V_{CBO}	- 40	V
: TIP30A		- 60	V
: TIP30B		- 80	V
: TIP30C		- 100	V
Collector Emitter Voltage : TIP30	V_{CEO}	- 40	V
: TIP30A		- 60	V
: TIP30B		- 80	V
: TIP30C		- 100	V
Emitter-Base Voltage	V_{EBO}	- 5	V
Collector Current (DC)	I_C	- 1	A
Collector Current (Pulse)	I_C	- 3	A
Base Current	I_B	- 0.4	A
Collector Dissipation (T_C=25°C)	P_C	30	W
Collector Dissipation (T_A=25°C)	P_C	2	W
Junction Temperature	T_J	150	°C
Storage Temperature	T_{STG}	- 65 ~ 150	°C

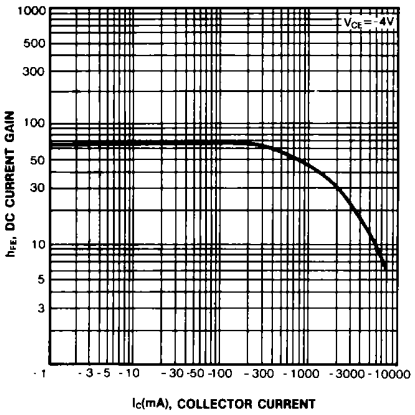
ELECTRICAL CHARACTERISTICS (T_C =25°C)

Characteristic	Symbol	Test Conditions	Min	Max	Unit
*Collector Emitter Sustaining Voltage	BV_{CEO}(sus)	I_C = -30mA, I_B = 0			
Collector Cutoff Current	I_{CEO}	V_{CE} = -30V, I_B = 0			
		V_{CE} = -60V, I_B = 0			
Collector Cutoff Current	I_{CES}	V_{CE} = -40V, V_{EB} = 0			
		V_{CE} = -60V, V_{EB} = 0			
		V_{CE} = -80V, V_{EB} = 0			
		V_{CE} = -100V, V_{EB} = 0			
Emitter Cutoff Current	I_{EBO}	V_{EB} = -5V, I_C = 0			
*DC Current Gain	h_{FE}	V_{CE} = -4V,I_C = -0.2A			
		V_{CE} = -4V, I_C = -1A			
*Collector Emitter Saturation Voltage	V_{CE}(sat)	I_C = -1A, I_B = -125mA			
*Base Emitter On Voltage	V_{BE}(on)	V_{CE} = -4V, I_C = -1A			
Current Gain Bandwidth Product	f_T	V_{CE} = -10V, I_C = -200mA			
		f = 1MHz			

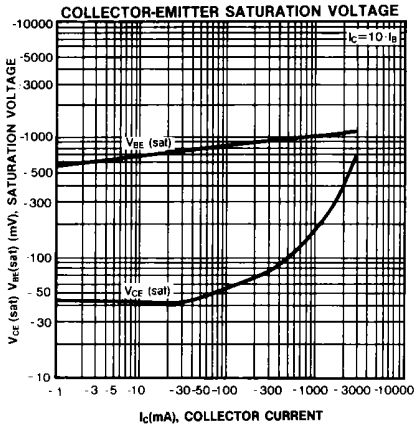
* Pulse Test: PW≤300μs, Duty Cycle≤2%

FAIRCHILD SEMICONDUCTOR™

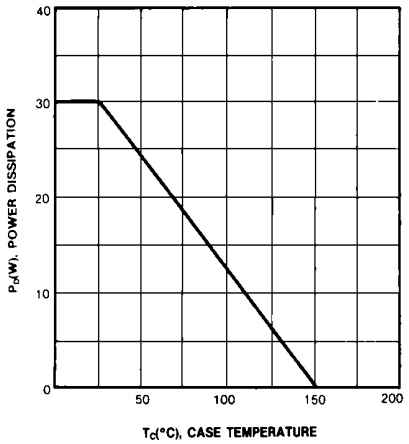
DC CURRENT GAIN



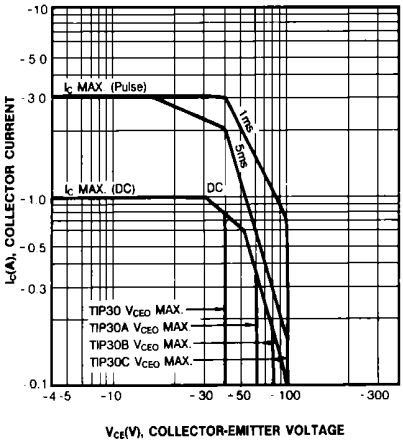
BASE-EMITTER SATURATION VOLTAGE
COLLECTOR-EMITTER SATURATION VOLTAGE



POWER DERATING



SAFE OPERATING AREA



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