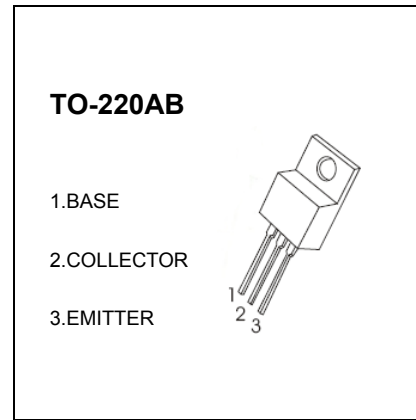


TIP42C Darlington TRANSISTOR (PNP)

- Medium Power Complementary Silicon Transistors

MAXIMUM RATINGS (T_a=25°C unless otherwise noted)

Parameter	Symbol	Rating	Unit
Collector-Base Voltage	V _{CBO}	-100	V
Collector-Emitter Voltage	V _{CEO}	-100	V
Emitter-Base Voltage	V _{EBO}	-5	V
Continuous Collector Current	I _C	-6	A
Peak Collector Current	I _{CM}	-10	A
Base Current	I _B	-2	A
Power Dissipation @T _C =25°C	P _D	65	W
Power Dissipation @T _A =25°C	P _D	2	W



Electrical Characteristics @ T_A=25°C Unless Otherwise Specified

Parameter	Symbol	Min	Typ	Max	Units	Conditions
Collector-Emitter Breakdown Voltage	V _{(BR)CEO}	-100			V	I _C =-30mA, I _B =0
Collector Cutoff Current	I _{CES}			-400	μA	V _{CE} =-100V, V _{EB} =0
Collector Cutoff Current	I _{CEO}			-700	μA	V _{CE} =-60V, I _B =0
Emitter Cutoff Current	I _{EBO}			-1	mA	V _{EB} =-5V, I _C =0
DC Current Gain	h _{FE(1)}	30				V _{CE} =-4V, I _C =-0.3A
	h _{FE(2)}	15		75		V _{CE} =-4V, I _C =-3A
Collector-Emitter Saturation Voltage	V _{CE(sat)}			-1.5	V	I _C =-6A, I _B =-0.6A
Base-Emitter Voltage	V _{BE}			-2.0	V	V _{CE} =-4V, I _C =-6A
Transition Frequency	f _T	3			MHZ	V _{CE} =-10V, I _C =-0.5A



Typical Characteristics

Fig. 1 - Static Characteristics

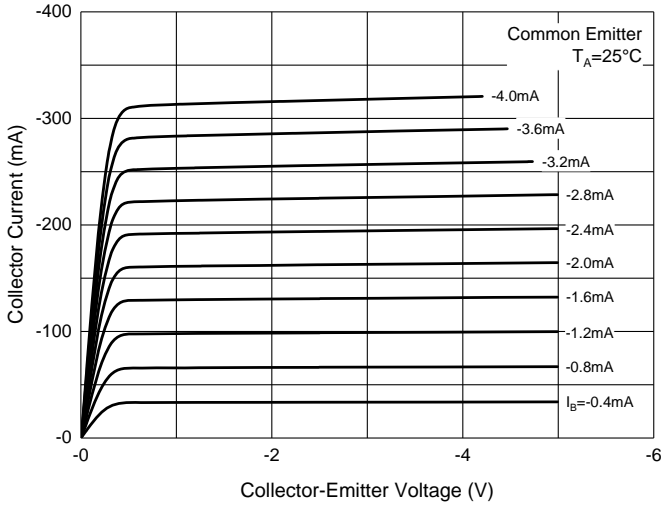


Fig. 2 - DC Current Gain Characteristics

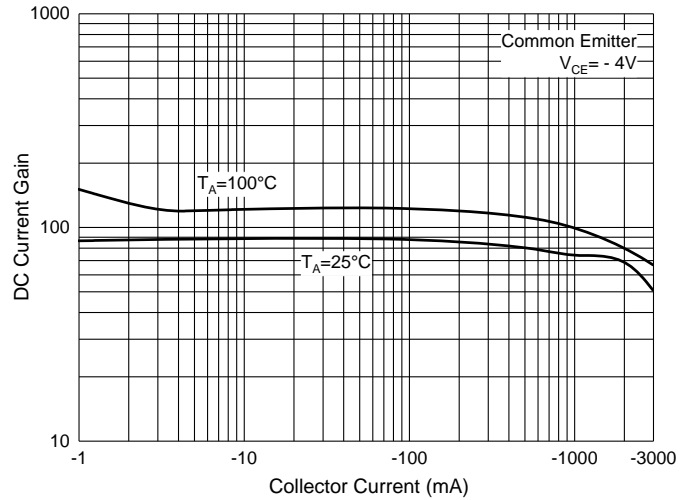


Fig. 3 - Collector-Emitter Saturation Voltage Characteristics

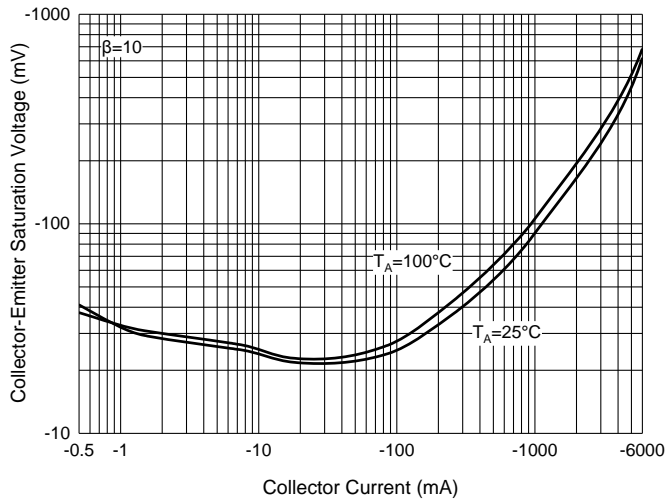


Fig. 4 - Base-Emitter Saturation Voltage Characteristics

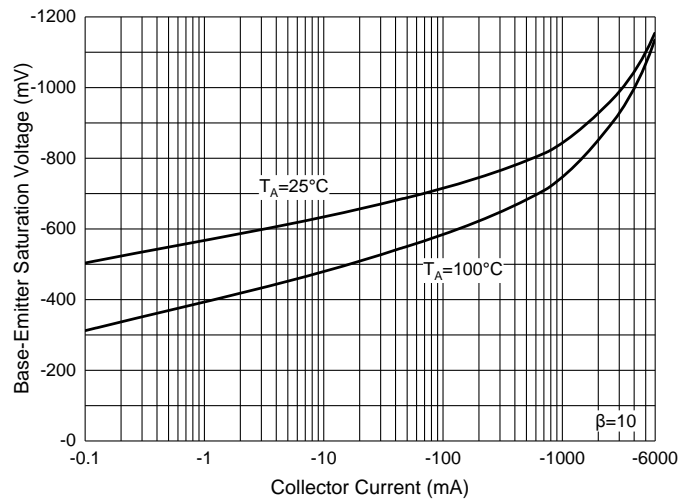


Fig. 5 - Base-Emitter Voltage Characteristics

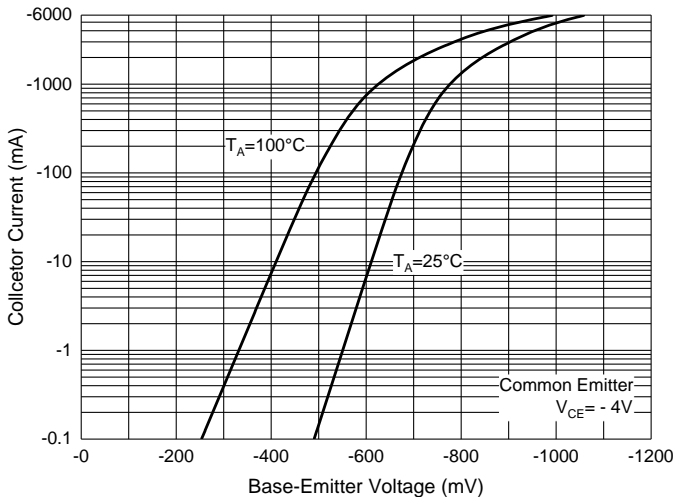
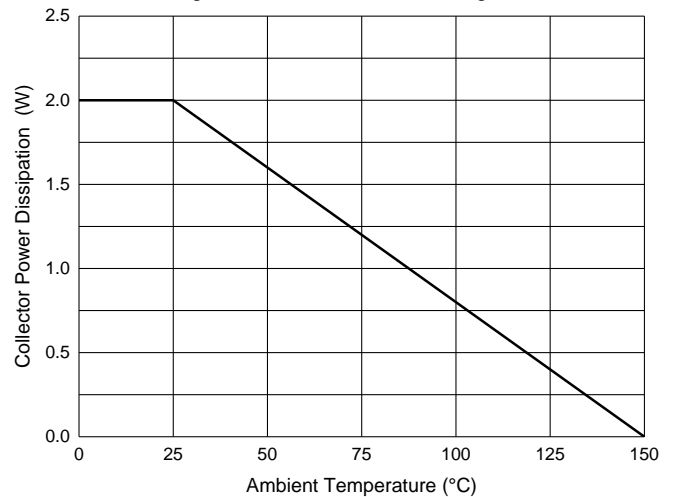


Fig. 6 - Collector Power Derating Curve



TO-220AB Package Outline Dimensions

