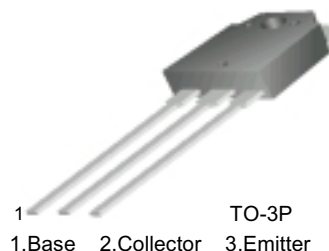


TIP42CP

TIP42CP

Medium Power Linear Switching Applications

- Complement to TIP41CP



PNP Epitaxial Silicon Transistor

Absolute Maximum Ratings $T_C=25^{\circ}\text{C}$ unless otherwise noted

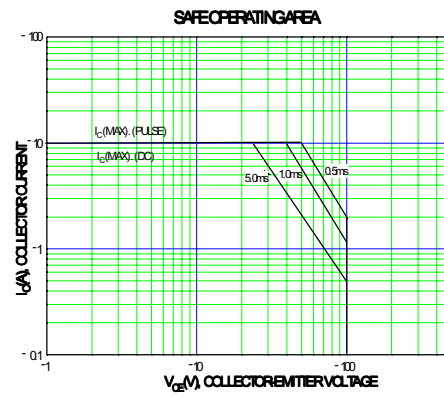
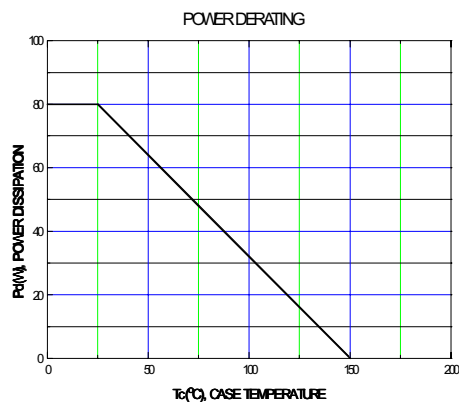
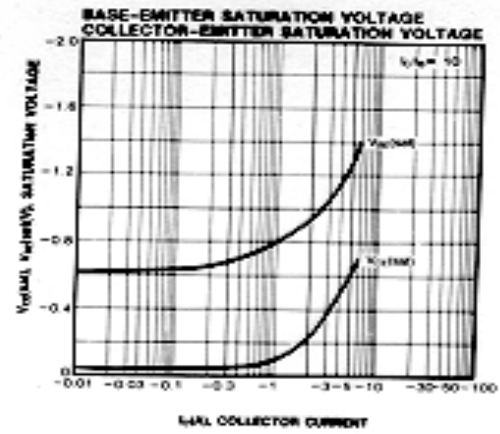
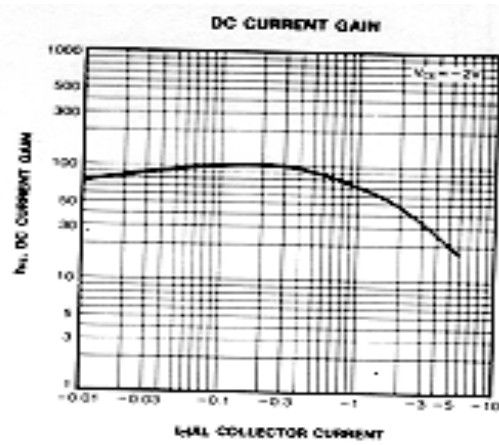
Symbol	Parameter	Value	Units
V_{CBO}	Collector-Base Voltage	- 100	V
V_{CEO}	Collector-Emitter Voltage	- 100	V
V_{EBO}	Emitter-Base Voltage	- 5	V
I_C	Collector Current (DC)	- 6	A
I_{CP}	Collector Current (Pulse)	- 10	A
I_B	Base Current	- 2	A
P_C	Collector Dissipation ($T_C=25^{\circ}\text{C}$)	80	W
P_C	Collector Dissipation ($T_a=25^{\circ}\text{C}$)	3	W
T_J	Junction Temperature	150	$^{\circ}\text{C}$
T_{STG}	Storage Temperature	- 65 ~ 150	$^{\circ}\text{C}$

Electrical Characteristics $T_C=25^{\circ}\text{C}$ unless otherwise noted

Symbol	Parameter	Test Condition	Min.	Max.	Units
$V_{CEO(sus)}$	* Collector-Emitter Sustaining Voltage	$I_C = -30\text{mA}, I_B = 0$	-100		V
I_{CES}	Collector Cut-off Current	$V_{CE} = -60\text{V}, I_B = 0$		-0.7	mA
I_{CES}	Collector Cut-off Current	$V_{CE} = -100\text{V}, V_{EB} = 0$		-400	μA
I_{EBO}	Emitter Cu-off Current	$V_{EB} = -5\text{V}, I_C = 0$		-1	mA
h_{FE}	* DC Current Gain	$V_{CE} = -4\text{V}, I_C = -0.3\text{A}$ $V_{CE} = -4\text{V}, I_C = -3\text{A}$	30 15	75	
$V_{CE(sat)}$	* Collector-Emitter Saturation Voltage	$I_C = -6\text{A}, I_B = -600\text{mA}$		-1.5	V
$V_{BE(sat)}$	* Base-Emitter Saturation Voltage	$V_{CE} = -4\text{V}, I_C = -6\text{A}$		-2.0	V
f_T	Current Gain Bandwidth Product	$V_{CE} = -10\text{V}, I_C = -500\text{mA}$	3.0		MHz

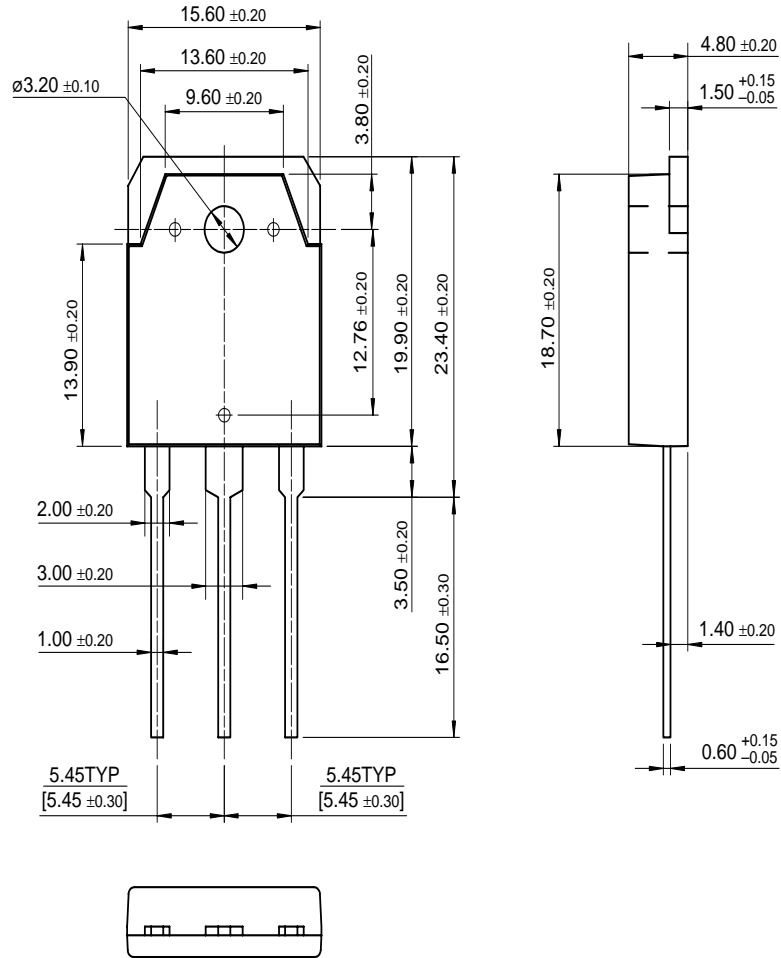
* Pulse Test : PW300, Duty Cycle2%

Typical Characteristics



Package Dimensions

TO-3P



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