

TO-220 Plastic-Encapsulate Transistors

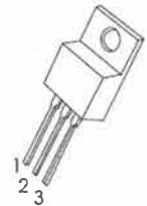
TIP42/42A/42B/42C TRANSISTOR (PNP)

FEATURES

- Medium Power Linear Switching Applications
- Complement to TIP41/41A/41B/41C

TO-220

1. BASE
2. COLLECTOR
3. EMITTER



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

Symbol	Parameter	TIP42	TIP42A	TIP42B	TIP42C	Unit
V _{CBO}	Collector-Base Voltage	-40	-60	-80	-100	V
V _{CEO}	Collector-Emitter Voltage	-40	-60	-80	-100	V
V _{EBO}	Emitter-Base Voltage	-5				V
I _C	Collector Current -Continuous	-6				A
P _C	Collector Power Dissipation	2				W
T _J	Junction Temperature	150				°C
T _{stg}	Storage Temperature Range	-55to+150				°C

ELECTRICAL CHARACTERISTICS (T_a=25°C unless otherwise specified)

Parameter	Symbol	Test conditions	Min	Max	Unit
Collector-base breakdown voltage TIP42 TIP42A TIP42B TIP42C	V _{(BR)CBO}	I _C = -1mA, I _E =0	-40 -60 -80 -100		V
Collector-emitter breakdown voltage TIP42 TIP42A TIP42B TIP42C	V _{(BR)CEO}	I _C = -30mA, I _B =0	-40 -60 -80 -100		V
Emitter-base breakdown voltage	V _{(BR)EBO}	I _E = -1mA, I _C =0	-5		V
Collector cut-off current TIP42 TIP42A TIP42B TIP42C	I _{CBO}	V _{CB} =-40V, I _E =0 V _{CB} =-60V, I _E =0 V _{CB} =-80V, I _E =0 V _{CB} =-100V, I _E =0		-0.4	mA
Collector cut-off current TIP42/42A TIP42B/42C	I _{CEO}	V _{CE} = -30V, I _B = 0 V _{CE} = -60V, I _B = 0		-0.7	mA
Emitter cut-off current	I _{EBO}	V _{EB} =-5V, I _C =0		-1	mA
DC current gain	h _{FE(1)}	V _{CE} =-4V, I _C =-0.3A	30		
	h _{FE(2)}	V _{CE} =-4 V, I _C = -3A	15	75	
Collector-emitter saturation voltage	V _{CE(sat)}	I _C =-6A, I _B =-0.6A		-1.5	V
Base-emitter voltage	V _{BE}	V _{CE} =-4V, I _C =-6A		-2	V
Transition frequency	f _T	V _{CE} =-10V, I _C =-0.5	3		MHz

* Pulse test

Typical Characteristics

TIP42C

