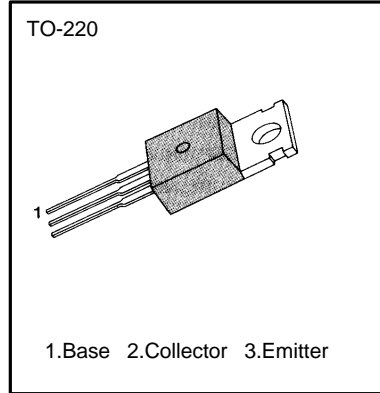


NPN EPITAXIAL TIP120/121/122 DARLINGTON TRANSISTOR

MEDIUM POWER TRANSISTOR SWITCHING APPLICATIONS

• Complementary to TIP125/126/127



ABSOLUTE MAXIMUM RATINGS

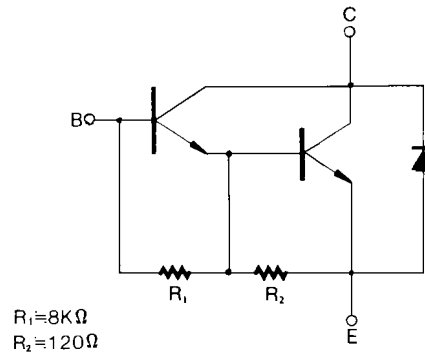
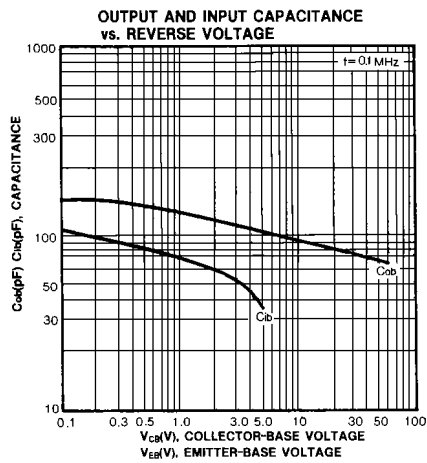
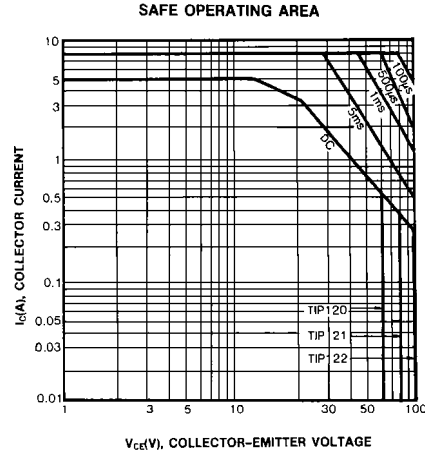
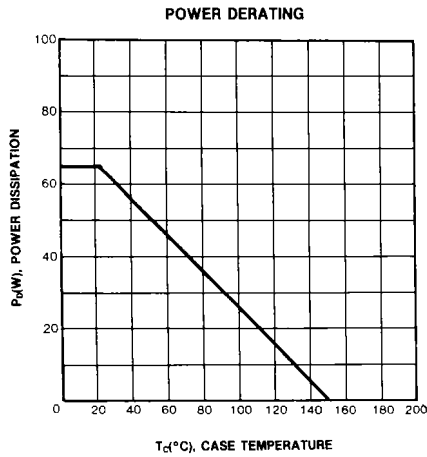
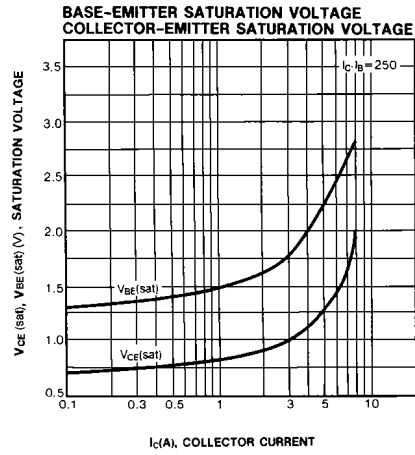
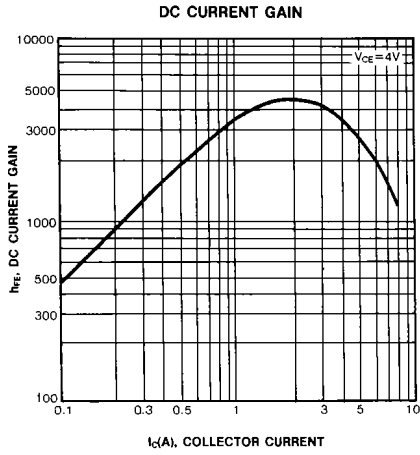
Characterist	Symbol	Rating	Unit
Collector-Base Voltage : TIP120	V _{CBO}	60	V
: TIP121		80	V
: TIP122		100	V
Collector-Emitter Voltag : TIP120	V _{CEO}	60	V
: TIP121		80	V
: TIP122		100	V
Emitter-Base Voltage	V _{EBO}	5	V
Collector Current (DC)	I _C	5	A
Collector Current (Pulse)	I _C	8	A
Base Current (DC)	I _B	120	mA
Collector Dissipation (T _A =25°C)	P _C	2	W
Collector Dissipation (T _C =25°C)	P _C	65	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 V _{CE(sus)} : TIP120	V _{CEO(sus)}	I _C = 100mA, I _B = 0	60		V
: TIP121			80		V
: TIP122			100		V
Collector Cutoff Current : TIP120	I _{CEO}	V _{CE} = 30V, I _B = 0		2	mA
: TIP121		V _{CE} = 40V, I _B = 0		2	mA
: TIP122		V _{CE} = 50V, I _B = 0		2	mA
Collector Cutoff Current : TIP120	I _{CBO}	V _{CB} = 60V, I _E = 0		1	mA
: TIP121		V _{CB} = 80V, I _E = 0		1	mA
: TIP122		V _{CB} = 100V, I _E = 0		1	mA
Emitter Cutoff Current	I _{EBO}	V _{BE} = 5V, I _C = 0		2	mA
* DC Current Gain	h _{FE}	V _{CE} = 3V, I _C = 0.5A	1000		
		V _{CE} = 3V, I _C = 3A	1000		
* Collector Emitter Saturation Voltage	V _{CE(sat)}	I _C = 3A, I _B = 12mA		2.0	V
		I _C = 5A, I _B = 20mA		4.0	V
* Base Emitter On Voltage	V _{BE(on)}	V _{CE} = 3V, I _C = 3A		2.5	V
Output Capacitance	C _{OB}	V _{CB} = 10V, I _E = 0, f = 0.1MHz		200	pF

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

NPN EPITAXIAL TIP120/121/122 DARLINGTON TRANSISTOR



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FACT™	QS™
FACT Quiet Series™	Quiet Series™
FAST®	SuperSOT™-3
FASTr™	SuperSOT™-6
GTO™	SuperSOT™-8
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