

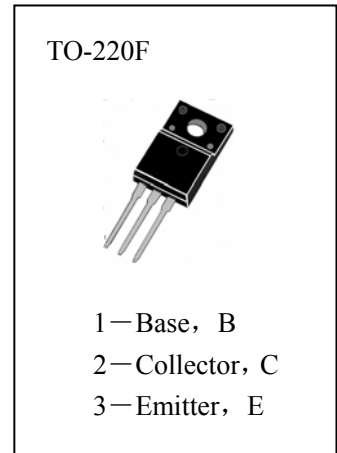


APPLICATIONS

Medium Power Linear switching Applications.

ABSOLUTE MAXIMUM RATINGS (Ta=25°C)

- T_{stg}—Storage Temperature..... -55~150°C
- T_j—Junction Temperature..... 150°C
- P_C—Collector Dissipation(Tc=25°C).....30W
- P_C—Collector Dissipation (Ta=25°C)2W
- V_{CBO}—Collector-Base Voltage.....100V
- V_{CEO}—Collector-Emitter Voltage.....100V
- V_{EBO}—Emitter-Base Voltage.....5V
- I_C—Collector Current (DC)3A
- I_C—Collector Current (Pulse)5A
- I_b—Base Current.....1A



ELECTRICAL CHARACTERISTICS (Ta=25°C)

Symbol	Characteristics	Min	Typ	Max	Unit	Test Conditions
BV _{CEO}	Collector-Emitter Breakdown Voltage	100			V	I _C =30mA, I _B =0
H _{FE} (1)	*DC Current Gain	25				V _{CE} =4V, I _C =1A
H _{FE} (2)	*DC Current Gain	10		50		V _{CE} =4V, I _C =3A
V _{CE(sat)}	*Collector- Emitter Saturation Voltage			1.2	V	I _C =3A, I _B =375mA
V _{BE(ON)}	*Base-Emitter On Voltage			1.8	V	V _{CE} =4V, I _C =3A
I _{CEO}	Collector Cut-off Current			0.3	mA	V _{CB} =60V, I _B =0
I _{CES}	Collector Cut-off Current			200	μ A	V _{CE} =100V, V _{EB} =0
I _{EBO}	Emitter Cut-off Current			1	mA	V _{EB} =5V, I _C =0
f _T	Current Gain-Bandwidth Product	3.0			MHz	V _{CE} =10V, I _C =0.5A, f=1MHz

*Pulse Test: PW≤300 μ s, Duty cycle≤2%

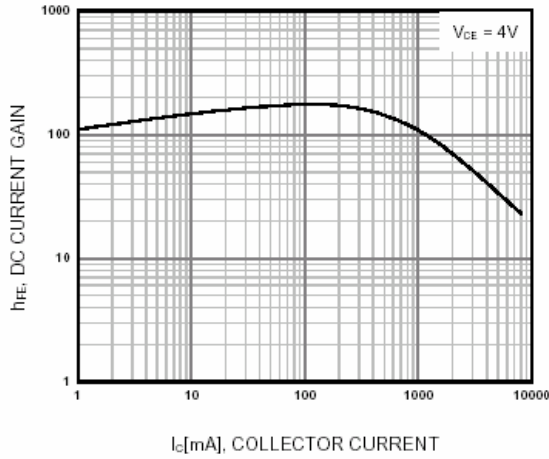


Figure 1. DC current Gain

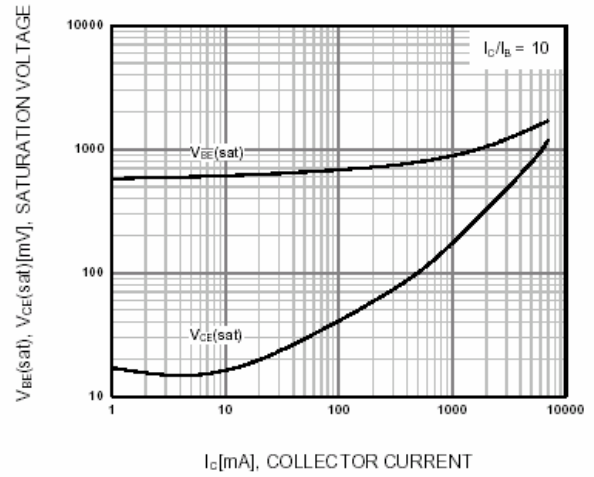


Figure 2. Base-Emitter Saturation Voltage
Collector-Emitter Saturation Voltage

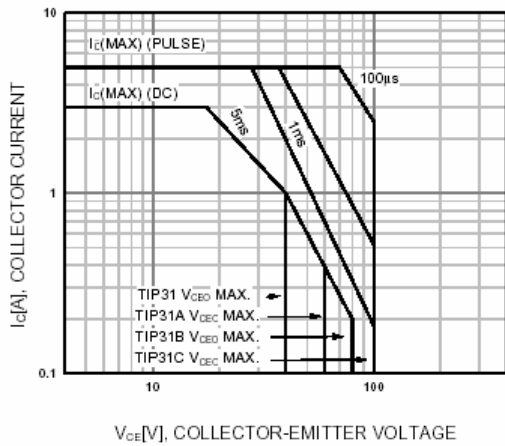


Figure 3. Safe Operating Area

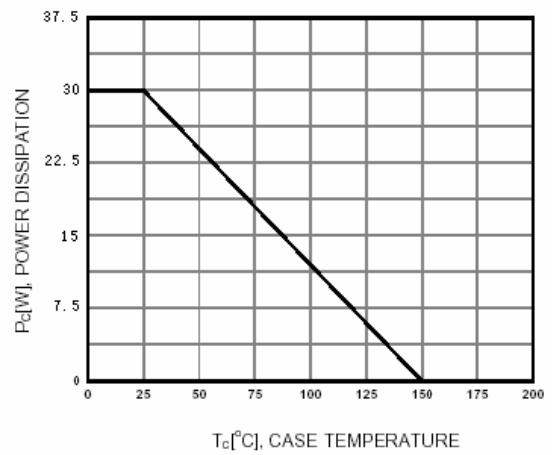


Figure 4. Power Derating