



Complementary Silicon Power Transistors

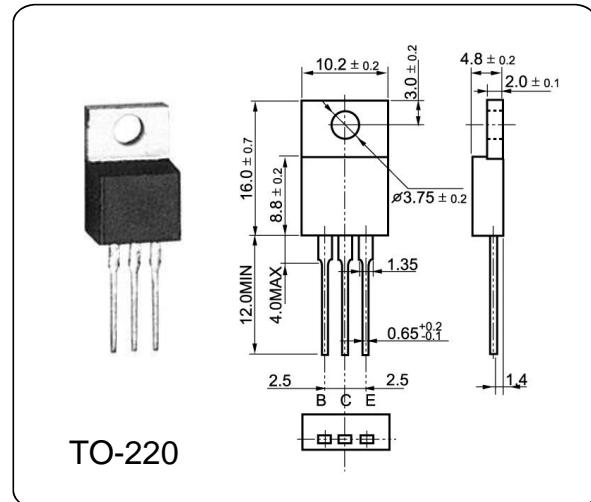
TIP31C / TIP32C

DESCRIPTION

It is intended for use in power amplifier and switching applications.

ABSOLUTE MAXIMUM RATINGS (Ta = 25 °C)

Parameter	Symbol	Value	Unit
Collector-Base Voltage	V _{CBO}	100	V
Collector-Emitter Voltage	V _{CEO}	100	V
Emitter-Base Voltage	V _{EBO}	5	V
Collector Current	I _C	3.0	A
Base Current	I _B	1.0	A
Total Dissipation at	P _{tot}	40	W
Max. Operating Junction Temperature	T _j	150	°C
Storage Temperature	T _{stg}	-55~150	°C



ELECTRICAL CHARACTERISTICS (Ta = 25 °C)

Parameter	Symbol	Test Conditions	Min.	Typ.	Max.	Unit
Collector Cut-off Current	I _{CEO}	V _{CB} =100V, I _E =0			0.3	mA
Emitter Cut-off Current	I _{EBO}	V _{EB} =5V, I _C =0			1.0	mA
Collector-Emitter Sustaining Voltage	V _{CEO}	I _C =30mA, I _B =0	100			V
DC Current Gain	h _{FE(1)}	V _{CE} =4V, I _C =1.0A	25			
	h _{FE(2)}	V _{CE} =4V, I _C =3.0A	10		50	
Collector-Emitter Saturation Voltage	V _{CE(sat)}	I _C =3A, I _B =300mA			1.2	V
Base-Emitter Saturation Voltage	V _{BE(sat)}	V _{CE} =4V, I _C =3.0A			1.8	V
Current Gain Bandwidth Product	f _T	V _{CE} =10V, I _C =500mA	3			MHz