



Complementary Silicon Power Transistors

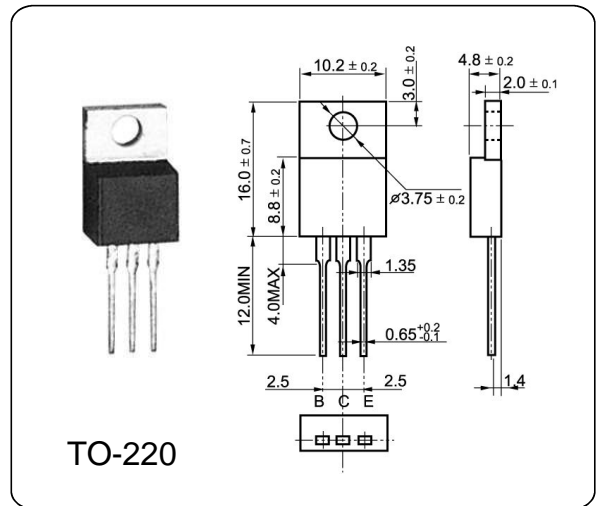
TIP31C / TIP32C

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