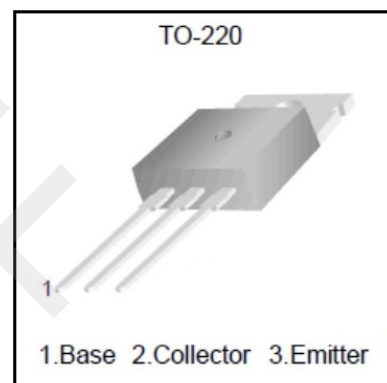


TIP31C

- Complementary to: TIP32C
- Package: TO-220

Maximum Ratings (Ta = 25°)

Parameter	Symbol	Rating	Unit
Collector-base voltage	BV_{CBO}	100	V
Collector-emitter voltage	BV_{CEO}	100	V
Emitter-base voltage	BV_{EBO}	5	V
Collector current	I_{CM}	3	A
Collector Power Dissipation	P_C	2	W
	$P_C(T_C = 25^\circ)$	40	
Junction Temperature	T_j	150	°C
Storage Temperature	T_{stg}	-55 ~ +150	°C



Electrical Characteristics (Ta=25°C)

Parameter	Symbol	Test Condition	Min	Typ	Max	Unit
Collector-Base Breakdown Voltage	BV_{CBO}	$I_C=1mA, I_E=0$	100			V
Collector-Emitter Breakdown Voltage	BV_{CEO}	$I_C=30mA, I_B=0$	100			V
Emitter-Base Breakdown Voltage	BV_{EBO}	$I_E=1mA, I_C=0$	5			V
collector-base cut-off current	I_{CBO}	$V_{CB}=100V, I_E=0$			200	μA
collector-emitter cut-off current	I_{CEO}	$V_{CE}=60V, I_B=0$			300	μA
emitter-base cut-off current	I_{EBO}	$V_{EB}=5V, I_C=0$			1	mA
DC current gain	H_{FE1}	$V_{CE}=4V, I_C=3A$	10		50	
	H_{FE2}	$V_{CE}=4V, I_C=1A$	25			
collector-emitter saturation voltage	V_{CESAT}	$I_C=3A, I_B=375mA$			1.2	V
Base-Emitter Saturation Voltage	$V_{BE(ON)}$	$V_{CE}=4V, I_C=3A$			1.8	V
Transition frequency	f_T	$V_{CE}=10V, I_C=500mA$	3			MHz