UNISONIC TECHNOLOGIES CO., LTD

TIP31C

NPN EXPITAXIAL TRANSISTOR

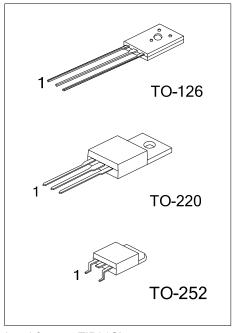
NPN EXPITAXIAL PLANAR **TRANSISTOR**

DESCRIPTION

The UTC TIP31C is a NPN epitaxial planar transistor, designed for using in general purpose amplifier and switching applications.

FEATURES

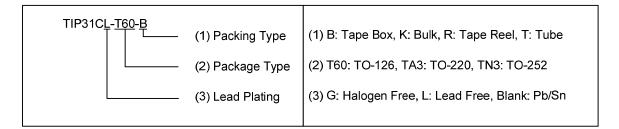
* Complement to TIP32C.



TIP31CL Lead-free: Halogen-free:TIP31CG

ORDERING INFORMATION

Ordering Number			Dookogo	Pin Assignment			Dooking	
Normal	Lead Free	Halogen Free	Package	1	2	3	Packing	
TIP31C-T60-B	TIP31CL-T60-B	TIP31CG-T60-B	TO-126	В	С	Е	Bulk	
TIP31C-TA3-T	TIP31CL-TA3-T	TIP31CG-TA3-T	TO-220	В	С	Е	Tube	
TIP31C-TN3-R	TIP31CL-TN3-R	TIP31CG-TN3-R	TO-252	В	С	Е	Tape Reel	



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■ ABSOLUTE MAXIMUM RATINGS

PARAMETER	SYMBOL	RATINGS	UNIT	
Collector-Base Voltage	V_{CBO}	100	V	
Collector-Emitter Voltage	V_{CEO}	100	V	
Emitter-Base Voltage	V_{EBO}	5	V	
Collector Current	DC		3	Α
Collector Current	Pulse	Ic	5	Α
Base Current	I _B	1	Α	
	TO-126		10	W
Collector Dissipation (T _C =25°C)	TO-220	Pc	40	W
	TO-252		15	W
Junction Temperature		TJ	+150	°C
Storage Temperature	T _{STG}	-65 ~ +150	°C	

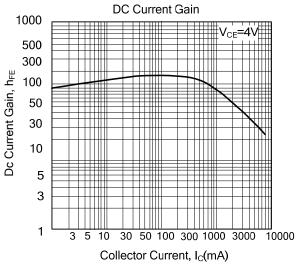
Note: Absolute maximum ratings are those values beyond which the device could be permanently damaged. Absolute maximum ratings are stress ratings only and functional device operation is not implied.

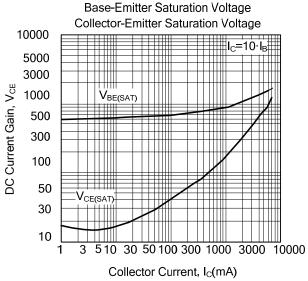
■ ELECTRICAL CHARACTERISTICS (T_C=25°C)

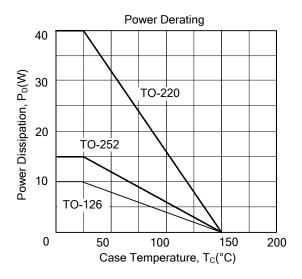
PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Collector Emitter Sustaining Voltage (Note)	BV_CEO	I _C =30mA, I _B =0	100			V
Collector Cutoff Current	I _{CES}	V _{CB} =100V, V _{EB} =0			200	μΑ
Collector Cutoff Current	I _{CEO}	V _{CE} =60V, I _B =0			0.3	mA
Emitter Cutoff Current	I_{EBO}	V_{BE} =5 V , I_{C} =0			1	mA
Collector-Emitter Saturation Voltage (Note)	$V_{CE(SAT)}$	I_C =3A, I_B =375mA			1.2	V
Base-Emitter On Voltage (Note)	$V_{BE(ON)}$	I _C =3A, V _{CE} =4V			1.8	V
DC Current Gain (Note)	h _{FE1}	I _C =1A, V _{CE} =4V	25			
DC Current Gain (Note)	h _{FE2}	I _C =3A, V _{CE} =4V	10		50	
Current Gain Bandwidth Product	f_{T}	I _C =0.5A, V _{CE} =10V f=1MHz	3			MHz

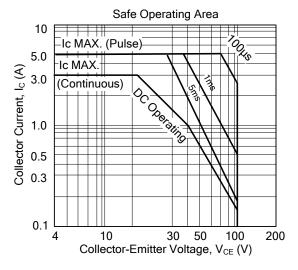
Note: Pulse Test: PW≤300µs, Duty Cycle≤2%

■ TYPICAL CHARACTERISTICS









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