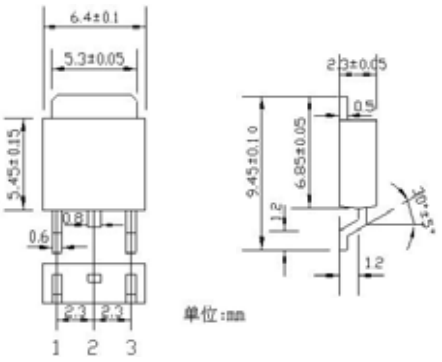
RECTRON SEMICONDUCTOR
TECHNICAL SPECIFICATION

TIP31CK

encapsulation mode：TO-252

Silicon NPN triode

1：base 2：collector 3：emitter



FEATURES

Medium Power Linear Switching Applications

Complementary to TIP32C

Marking code：TIP31C

Maximum ratings(Ta=25℃ unless otherwise noted)

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	A
Collector Power Dissipation@Ta=25℃	P_C	2	W
Junction Temperature	T_J	-65～150	℃
Storage Temperature	Tstg	-65～150	℃

Electrical Characteristics (Ta=25℃ unless otherwise noted)

Parameter	Symbol	Test Condition	Min	Max	Unit
Collector-Base Breakdown Voltage	V_{CBO}	IC=1mA IE=0	100		V
Collector-Emitter Sustaining Voltage	V_{CEO}	IC=30mA IB=0	100		V
Emitter-Base Breakdown Voltage	V_{EBO}	IE=1mA IC=0	5		V
Collector Cutoff Current	I_{CEO}	VCE=60V IB=0		0.3	mA
Collector Cutoff Current	I_{CES}	VCE=100V IB=0		0.2	mA
Emitter Cutoff Current	I_{EBO}	VEB=5V IC=0		1	mA
DC Current Gain	$H_{FE(1)}$	VCE=4V IC=1A	25		
	$H_{FE(2)}$	VCE=4V IC=3A	15	50	
Collector-Emitter Saturation Voltage	VCE(sat)	IC=3A IB=375mA		1.2	V
Base-Emitter On Voltage	$V_{BE(on)}$	VCE=4V IC=3A		1.8	V
transition frequency	f_T	VCE=10V IC=500mA f=1MHz	3		MHz

2018-09/17
REV:A

RATING AND CHARACTERISTICS CURVES (TIP31CK)

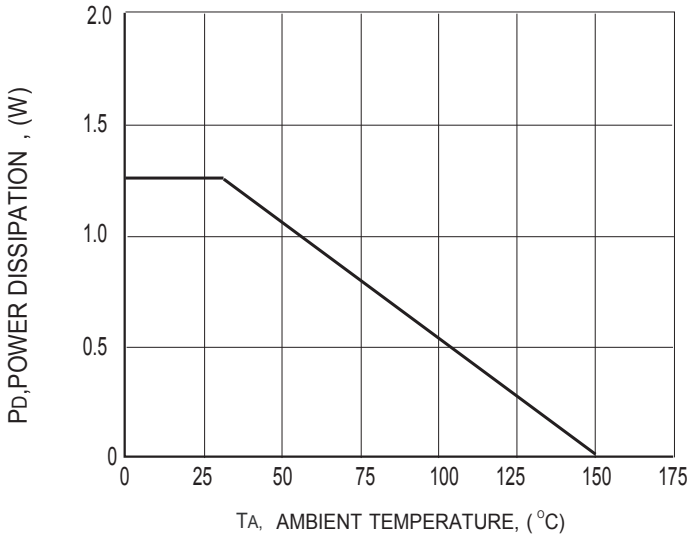
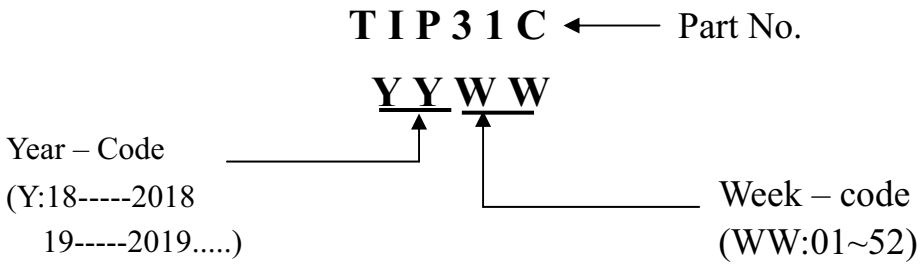


FIG .1 Power Derating

RECTRON

Marking on the body



Packaging

Package	Reel (pcs/reel)	Reel (pcs/innerbox)	Reel (pcs/cartoon)
TO-252	2,500	5,000	40,000

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