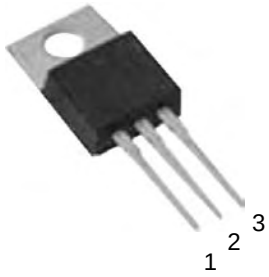
TIP32/32A/32B/32C

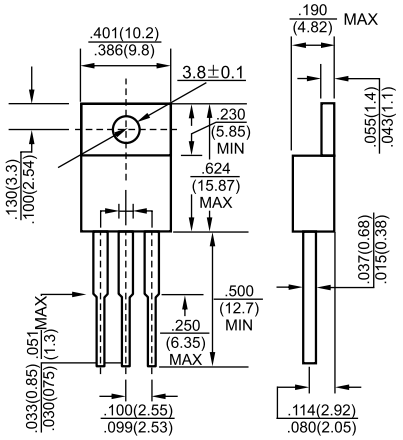
TO-220 Transistor (PNP)

RoHS COMPLIANT



1. BASE
2. COLLECTOR
3. EMITTER

TO-220



Dimensions in inches and (millimeters)

Features

✧ Medium Power Linear Switching Applications

MAXIMUM RATINGS (T_A=25℃ unless otherwise noted)

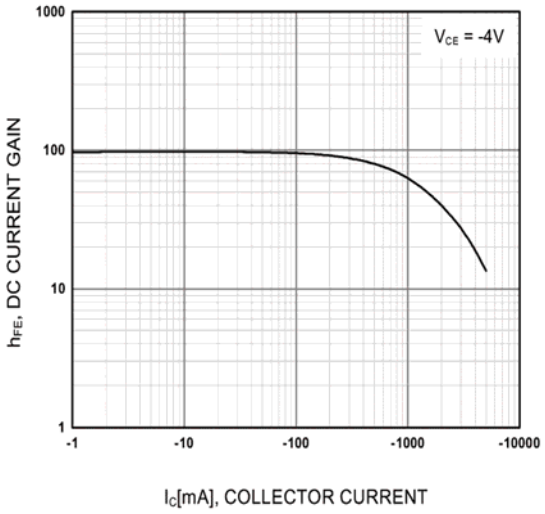
Symbol	Parameter	TIP32	TIP32A	TIP32B	TIP32C	Units
V_{CBO}	Collector-Base Voltage	-40	-60	-80	-100	V
V_{CEO}	Collector-Emitter Voltage	-40	-60	-80	-100	V
V_{EBO}	Emitter-Base Voltage	-5				V
I_C	Collector Current -Continuous	-3				A
P_C	Collector Power Dissipation	2				W
T_j	Junction Temperature	150				℃
T_{stg}	Storage Temperature Range	-55to+150				℃

ELECTRICAL CHARACTERISTICS (Tamb=25℃ unless otherwise specified)

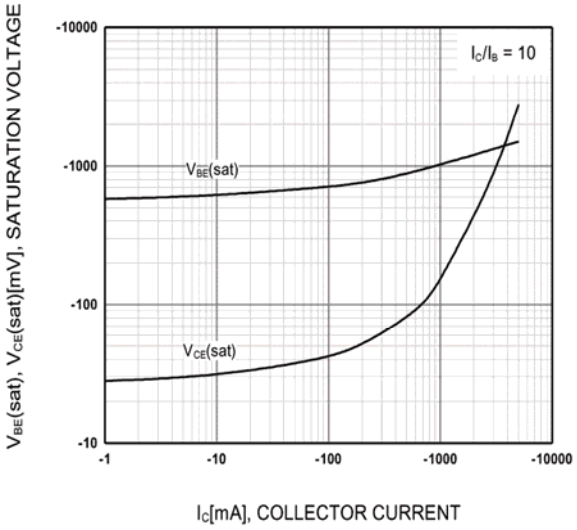
Parameter		Symbol	Test conditions	MIN	MAX	UNIT
Collector-base breakdown voltage	**TIP32**	$V(BR)_{CBO}$	I_C= -1mA, I_E=0	-40		V
	TIP32A			-60		
	TIP32B			-80		
	TIP32C			-100		
Collector-emitter breakdown voltage *	**TIP32**	$V(BR)_{CEO}$	I_C= -30mA, I_B=0	-40		V
	TIP32A			-60		
	TIP32B			-80		
	TIP32C			-100		
Emitter-base breakdown voltage		$V(BR)_{EBO}$	I_E= -1mA, I_C=0	-5		V
Collector cut-off current	**TIP32**	I_{CBO}	V_{CB}=-40V,I_E=0		-200	μA
	TIP32A		V_{CB}=-60V, I_E=0			
	TIP32B		V_{CB}=-80V, I_E=0			
	TIP32C		V_{CB}=-100V, I_E=0			
Collector cut-off current	**TIP32/32A**	I_{CEO}	V_{CE}= -30V, I_B= 0		-0.3	mA
	TIP32B/32C		V_{CE}= -60V, I_B= 0			
Emitter cut-off current		I_{EBO}	V_{EB}=-5V, I_C=0		-1	mA
DC current gain		$h_{FE(1)}$	V_{CE}= -4V, I_C=-1A	25		
		$h_{FE(2)}$	V_{CE}=-4 V, I_C=-3A	10	50	
Collector-emitter saturation voltage		$V_{CE(sat)}$	I_C=-3A, I_B=-0.375A		-1.2	V
Base-emitter voltage		$V_{BE(on)}$	V_{CE}=-4V, I_C=-3A		-1.8	V
Transition frequency		f_T	V_{CE}=-10V , I_C=-0.5A	3		MH_Z

* Pulse Test: PW≤300μs, Duty Cycle≤2%

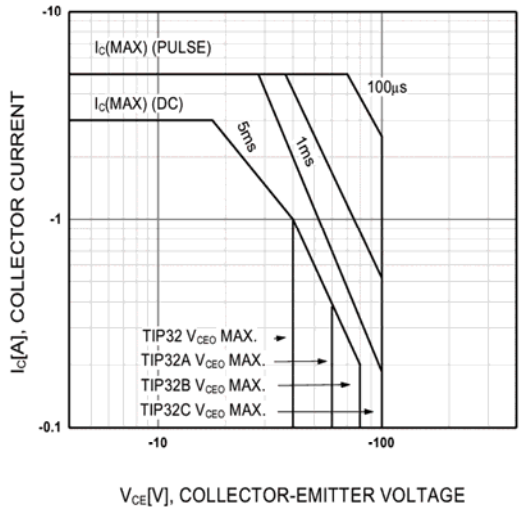
Typical Characteristics



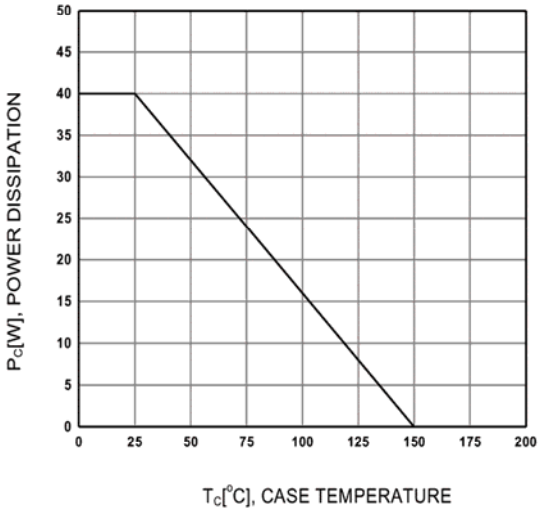
DC current Gain



Base-Emitter Saturation Voltage
Collector-Emitter Saturation Voltage



Safe Operating Area



Power Derating