

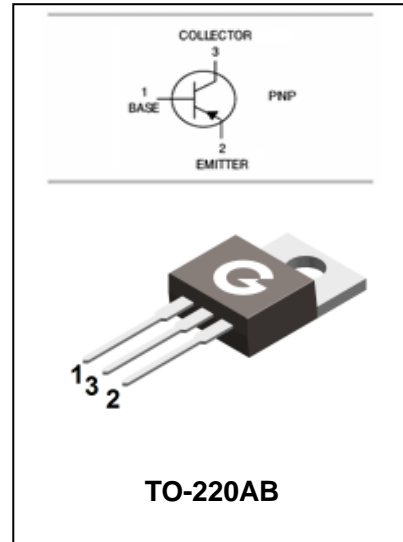
Epitaxial Planar PNP Transistor

TIP32/32A/32B/32C

FEATURES

- Complementary to TIP31/31A/31B/31C

HF



Ordering Information

Part Number	Package	Shipping	Marking Code
TIP32/32A/32B/32C	TO-220AB	50 pcs / Tube	TIP32/32A/32B/32C

MAXIMUM RATING operating temperature range applies unless otherwise specified

Symbol	Parameter		Value	Unit
V_{CBO}	Collector-Base Voltage	TIP32	-40	V
		TIP32A	-60	
		TIP32B	-80	
		TIP32C	-100	
V_{CEO}	Collector-Emitter Voltage	TIP32	-40	V
		TIP32A	-60	
		TIP32B	-80	
		TIP32C	-100	
V_{EBO}	Emitter-Base Voltage		-5	V
I_C	Collector Current	DC	-3	A
		Pulse	-5	
I_B	Base Current		-3	A
P_C	Collector Dissipation	$T_a=25^\circ\text{C}$	2	W
T_j, T_{stg}	Junction and Storage Temperature		-65 to +150	$^\circ\text{C}$

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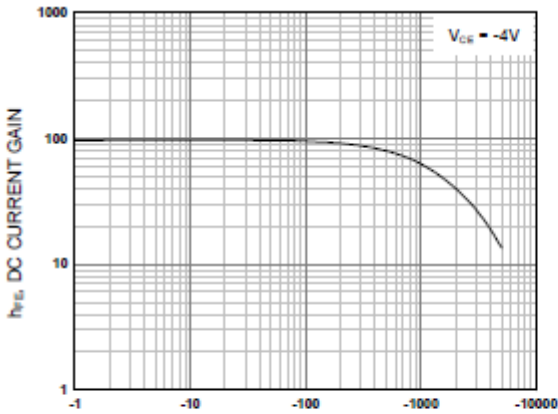
ELECTRICAL CHARACTERISTICS Ratings at 25°C ambient temperature unless otherwise specified.

Parameter	Symbol	Test conditions	MIN	TYP	MAX	UNIT
Collector-emitter Sustaining Voltage TIP32 TIP32A TIP32B TIP32C	$V_{CEO(SUS)}$	$I_C = -30mA, I_B = 0$	-40 -60 -80 -100			V
Collector Cut-off Current TIP32/32A TIP32B/32C	I_{CEO}	$V_{CE} = -30V, I_B = 0$ $V_{CE} = -60V, I_B = 0$			-0.3 -0.3	mA
Collector Cut-off Current TIP32 TIP32A TIP32B TIP32C	I_{CES}	$V_{CE} = -40V, V_{EB} = 0$ $V_{CE} = -60V, V_{EB} = 0$ $V_{CE} = -80V, V_{EB} = 0$ $V_{CE} = -100V, V_{EB} = 0$			-200 -200 -200 -200	μA
Emitter Cut-off Current	I_{EBO}	$V_{EB} = -5V, I_C = 0$			-1	mA
DC Current Gain	h_{FE}	$V_{CE} = -4V, I_C = -1A$ $V_{CE} = -4V, I_C = -3A$	25 15		75	
Collector-emitter Saturation Voltage	$V_{CE(sat)}$	$I_C = -3A, I_B = -375mA$			-1.2	V
Base-emitter Saturation Voltage	$V_{BE(sat)}$	$V_{CE} = -4V, I_C = -3A$			-1.8	V
Transition Frequency	f_T	$V_{CE} = -10V,$ $I_C = -0.5A$	3			MHz

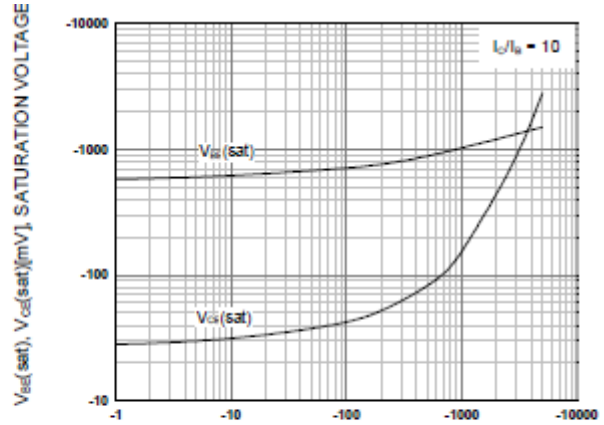
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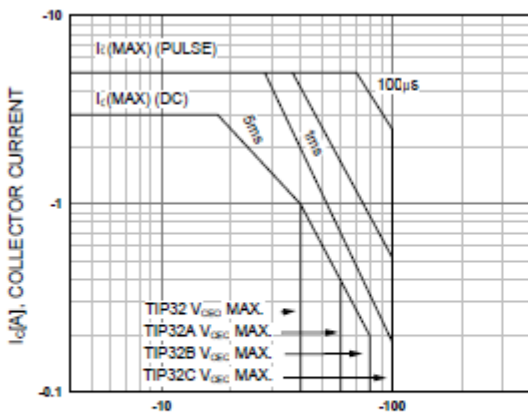
TYPICAL CHARACTERISTICS @ $T_a=25^\circ\text{C}$ unless otherwise specified



I_C [mA], COLLECTOR CURRENT
 Figure 1. DC current Gain



I_C [mA], COLLECTOR CURRENT
 Figure 2. Base-Emitter Saturation Voltage
 Collector-Emitter Saturation Voltage



V_{CE} [V], COLLECTOR-EMITTER VOLTAGE
 Figure 3. Safe Operating Area

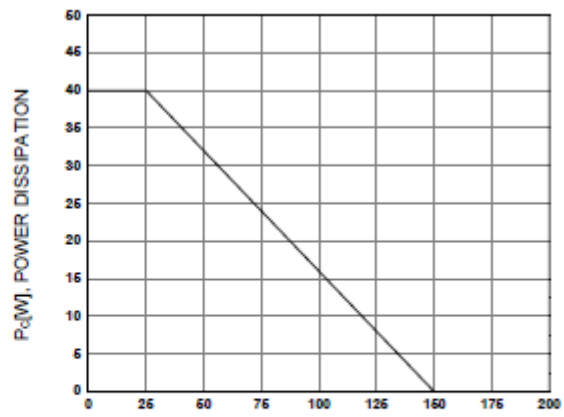


Figure 4. Power Derating

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PACKAGE OUTLINE

Plastic surface mounted package

TO-220AB

