

TIP32 SERIES
(TIP32/32A/32B/32C)

PNP EPITAXIAL SILICON TRANSISTOR

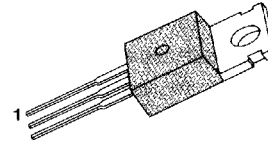
MEDIUM POWER LINEAR SWITCHING APPLICATIONS

• Complement to TIP31/31A/31B/31C

ABSOLUTE MAXIMUM RATINGS

Characteristic	Symbol	Rating	Unit
Collector Base Voltage : TIP32	V_{CBO}	-40	V
: TIP32A		-60	V
: TIP32B		-80	V
: TIP32C		-100	V
Collector Emitter Voltage : TIP32	V_{CEO}	-40	V
: TIP32A		-60	V
: TIP32B		-80	V
: TIP32C		-100	V
Emitter-Base Voltage	V_{EBO}	-5	V
Collector Current (DC)	I_C	-3	A
Collector Current (Pulse)	I_C	-5	A
Base Current	I_B	-3	A
Collector Dissipation ($T_C=25^\circ\text{C}$)	P_C	40	W
Collector Dissipation ($T_A=25^\circ\text{C}$)	P_C	2	W
Junction Temperature	T_J	150	$^\circ\text{C}$
Storage Temperature	T_{STG}	-65 ~ 150	$^\circ\text{C}$

TO-220



1.Base 2.Collector 3.Emitter

ELECTRICAL CHARACTERISTICS ($T_C=25^\circ\text{C}$)

Characteristic	Symbol	Test Conditions	Min	Max	Unit
*Collector Emitter Sustaining Voltage : TIP32	$BV_{CEO(SUS)}$	$I_C = -30\text{mA}, I_B = 0$	-40		V
: TIP32A			-60		V
: TIP32B			-80		V
: TIP32C			-100		V
Collector Cutoff Current : TIP32/32A	I_{CEO}	$V_{CE} = -30\text{V}, I_B = 0$		-0.3	mA
: TIP32B/32C				-0.3	mA
Collector Cutoff Current : TIP32	I_{CES}	$V_{CE} = -40\text{V}, V_{EB} = 0$	-200		μA
: TIP32A			-200		μA
: TIP32B			-200		μA
: TIP32C			-200		μA
Emitter Cutoff Current	I_{EBO}	$V_{EB} = -5\text{V}, I_C = 0$		-1	mA
*DC Current Gain	h_{FE}	$V_{CE} = -4\text{V}, I_C = -1\text{A}$	25		
			$V_{CE} = -4\text{V}, I_C = -3\text{A}$	10	50
*Collector Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C = -3\text{A}, I_B = -375\text{mA}$		-1.2	V
*Base Emitter On Voltage	$V_{BE(on)}$	$V_{CE} = -4\text{V}, I_C = -3\text{A}$		-1.8	V
Current Gain Bandwidth Product	f_T	$V_{CE} = -10\text{V}, I_C = -500\text{mA}$ $f = 1\text{MHz}$	3.0		MHz

* Pulse Test: $PW \leq 300\mu\text{s}$, duty Cycle $\leq 2\%$

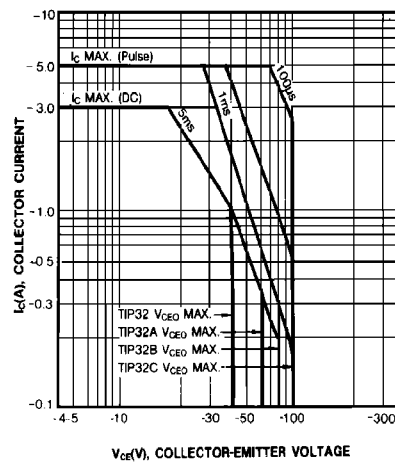
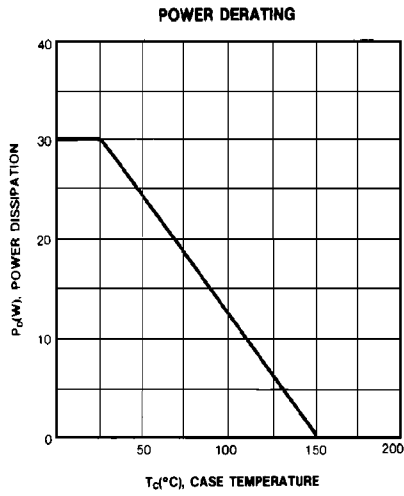
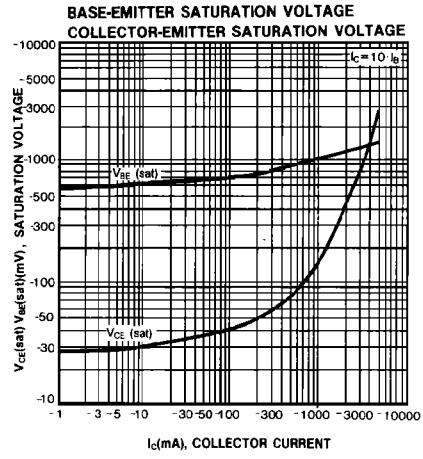
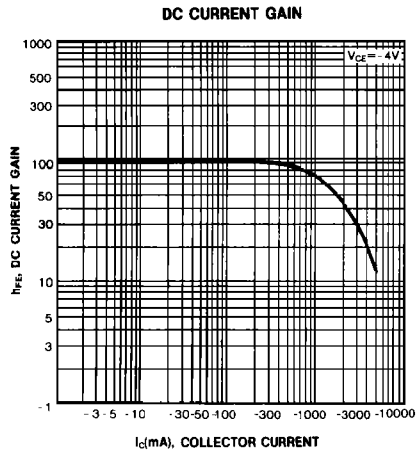
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