

GMBT1132

PNP EPITAXIAL PLANAR TRANSISTOR

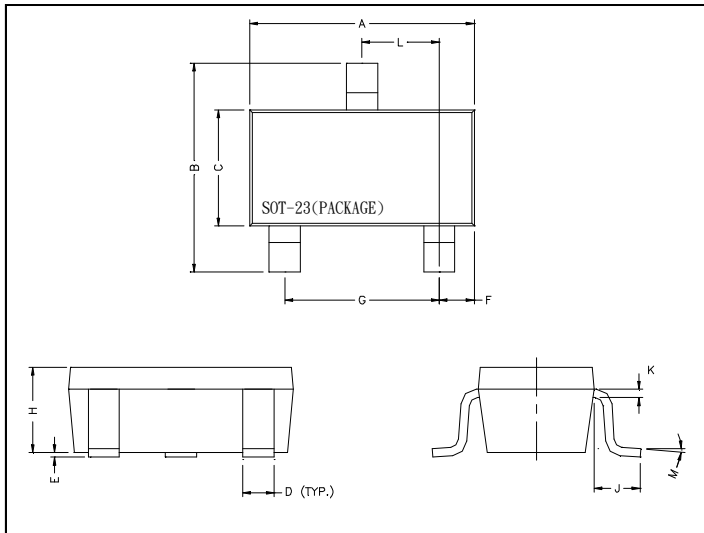
Description

The GMBT1132 is designed for general purpose amplifier applications.

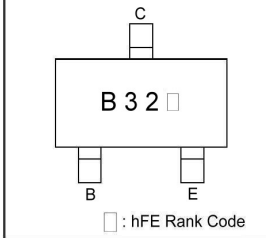
Features

- Low $V_{CE(sat)} = -200\text{mV (Typ.)}$ ($I_C/I_B = -500\text{mA}/-50\text{mA}$)

Package Dimensions



Marking :



REF.	Millimeter		REF.	Millimeter	
	Min.	Max.		Min.	Max.
A	2.70	3.10	G	1.90	REF.
B	2.40	2.80	H	1.00	1.30
C	1.40	1.60	K	0.10	0.20
D	0.35	0.50	J	0.40	-
E	0	0.10	L	0.85	1.15
F	0.45	0.55	M	0°	10°

Absolute Maximum Ratings at $T_a = 25^\circ\text{C}$

Parameter	Symbol	Ratings	Unit
Junction Temperature	T_j	+150	$^\circ\text{C}$
Storage Temperature	T_{stg}	-55~+150	$^\circ\text{C}$
Collector to Base Voltage	V_{CBO}	-40	V
Collector to Emitter Voltage	V_{CEO}	-32	V
Emitter to Base Voltage	V_{EBO}	-5	V
Collector Current (DC)	I_C	-1	A
Collector Current (Pulse)	I_C	-2	A
Total Power Dissipation	PD	225	mW

Electrical Characteristics ($T_a = 25^\circ\text{C}$, unless otherwise noted)

Symbol	Min.	Typ.	Max.	Unit	Test Conditions
V_{CBO}	-40	-	-	V	$I_C = -50\mu\text{A}$, $I_E = 0$
V_{CEO}	-32	-	-	V	$I_C = -1\text{mA}$, $I_B = 0$
V_{EBO}	-5	-	-	V	$I_E = -50\mu\text{A}$, $I_C = 0$
I_{CBO}	-	-	-500	nA	$V_{CB} = -20\text{V}$, $I_E = 0$
I_{EBO}	-	-	-500	nA	$V_{EB} = -4\text{V}$, $I_C = 0$
* $V_{CE(sat)}$	-	-200	-500	mV	$I_C = -500\text{mA}$, $I_B = -50\text{mA}$
* h_{FE}	82	-	390		$V_{CE} = -3\text{V}$, $I_C = -100\text{mA}$
fT	-	150	-	MHz	$V_{CE} = -5\text{V}$, $I_C = -50\text{mA}$, $f = 30\text{MHz}$
Cob	-	20	30	pF	$V_{CB} = -10\text{V}$, $I_E = 0$, $f = 1\text{MHz}$

* Pulse Test: Pulse Width $\leq 380\mu\text{s}$, Duty Cycle $\leq 2\%$

Classification Of h_{FE}

Rank	B32P	B32Q	B32R
Range	82 - 180	120 - 270	180 - 390

Characteristics Curve

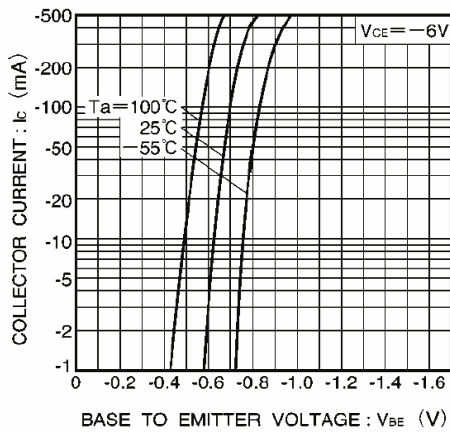


Fig.1 Grounded emitter propagation characteristics

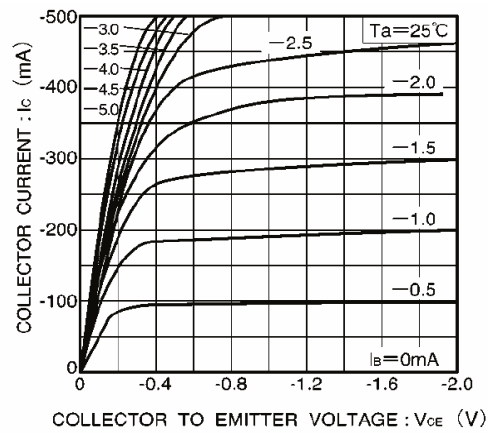


Fig.2 Grounded emitter output characteristics

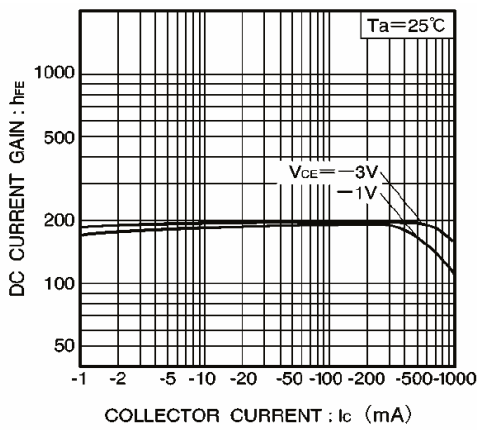


Fig.3 DC current gain vs. collector current (I)

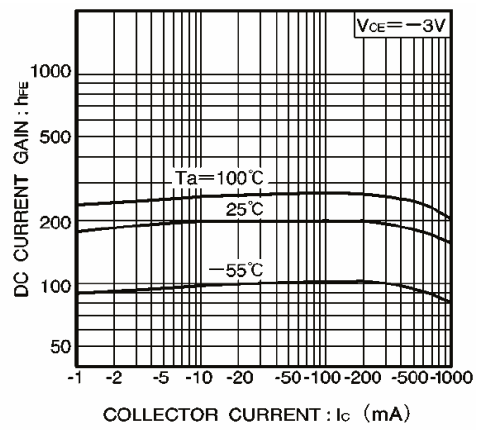


Fig.4 DC current gain vs. collector current (II)

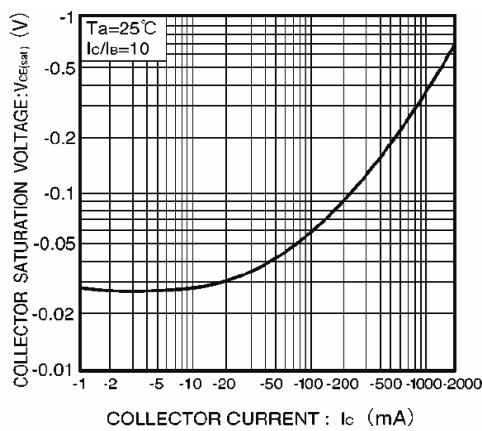


Fig.5 Collector-emitter saturation voltage vs. collector current

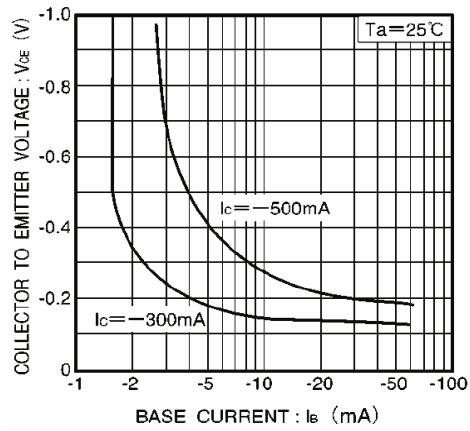


Fig.6 Collector-emitter saturation voltage vs. base current

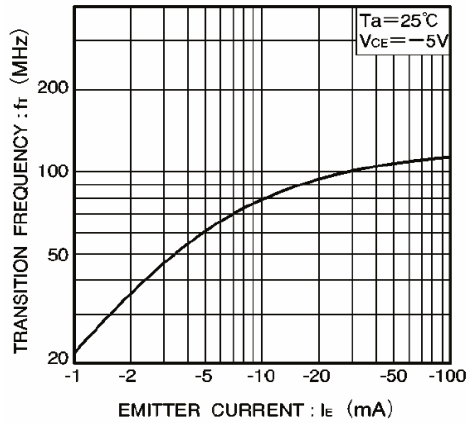


Fig.7 Gain bandwidth product vs. emitter current

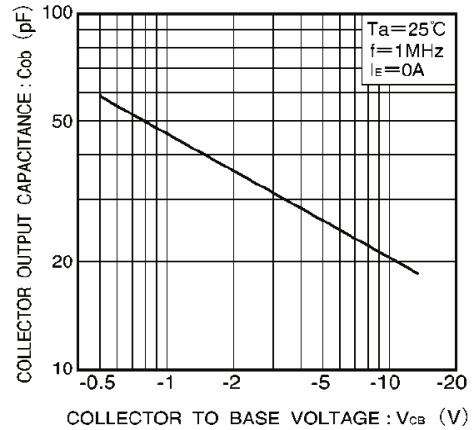


Fig.8 Collector output capacitance vs. collector-base voltage

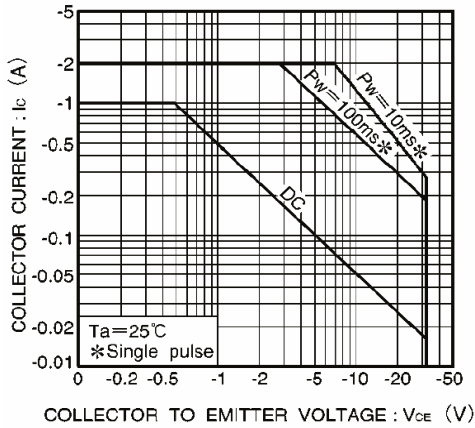


Fig.9 Safe operation area

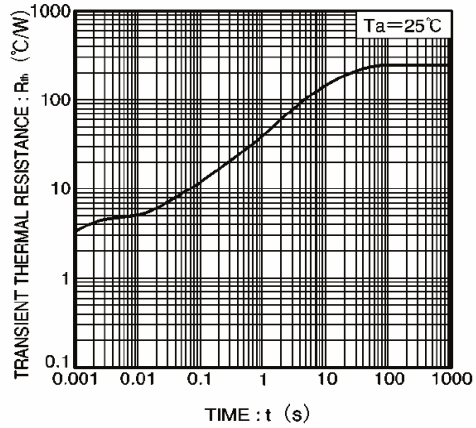


Fig.10 Transient thermal resistance

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