

〈SMALL-SIGNAL TRANSISTOR〉

RTGN131AP

TRANSISTOR WITH RESISTOR
FOR SWITCHING APPLICATION
SILICON NPN EPITAXIAL TYPE

DISCRIPTION

RTGN131AP is a one chip transistor with built-in bias transistor.

FEATURE

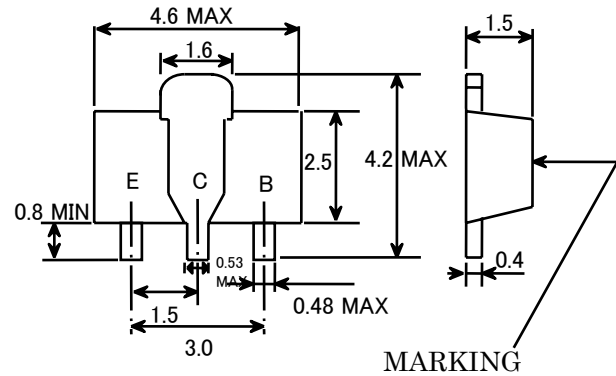
- Built-in bias resistor (R1=1kΩ,R2=1kΩ)
- High collector current IC=1A
- Built-in zener diode between collector and base

APPLICATION

Motor driver circuit

OUTLINE DRAWING

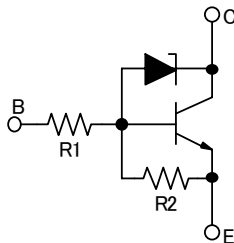
Unit:mm



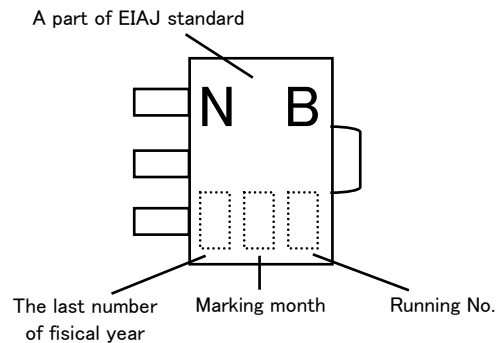
TERMINAL CONNECTOR

E: EMITTER
C: COLLECTOR
B: BASE JEDEC :—

EQUIVALENT CIRCUIT



MARKING



MAXIMUM RATING (Ta=25°C)

SYMBOL	PARAMETER	RATING	UNIT
V _{CBO}	Collector to Base voltage	60±10	V
V _{EBO}	Emitter to Base voltage	10	V
V _{CEO}	Collector to Emitter voltage	60±10	V
I _C	Collector current (DC)	1	A
I _{CM}	Collector current (pulse)	2	A
P _C	Collector dissipation	500	mW
T _j	Junction temperature	+150	°C
T _{stg}	Storage temperature	-55~+150	°C

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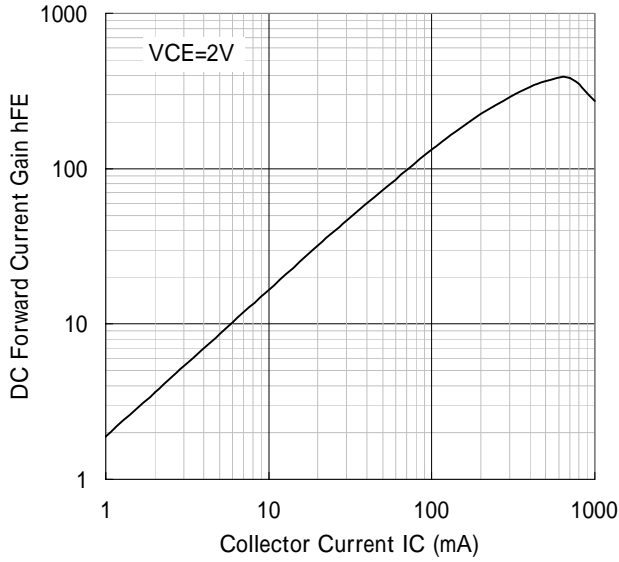
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ELECTRICAL CHARACTERISTICS (T_a=25°C)

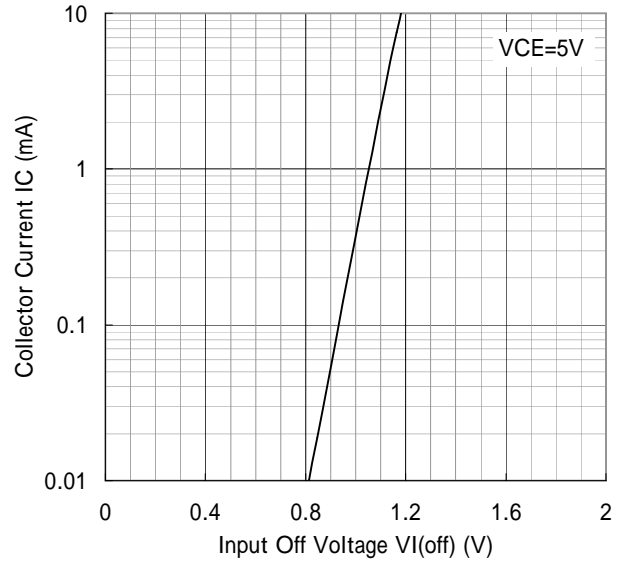
Symbol	Parameter	Test conditions	Limits			Unit
			Min	Typ	Max	
I _{CBO}	Collector cut off current	V _{CB} =40V, I _E =0	—	—	0.1	μA
V _{OL}	Output voltage	V _I =5V, I _C =0.4A	—	—	0.35	V
V _{IL}	Input voltage (OFF)	V _{CE} =5V, I _C =100 μA	0.3	—	—	V
hFE1	DC forward current gain	V _{CE} =2V, I _C =0.1A	80	—	—	—
hFE2	DC forward current gain	V _{CE} =2V, I _C =0.5A	200	—	—	—
hFE3	DC forward current gain	V _{CE} =2V, I _C =1A	200	—	—	—
R ₁	Input resistor	—	0.7	1	1.3	KΩ
R ₂	Emitter – Base resistor	—	0.7	1	1.3	KΩ

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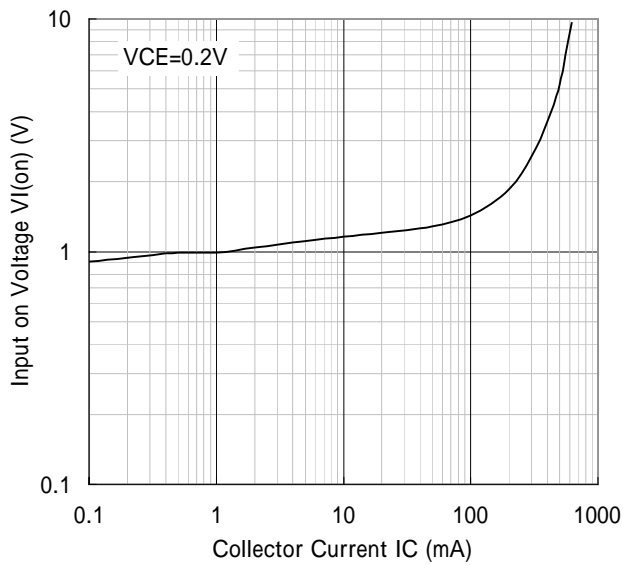
hFE - IC



IC - VI(off)



VI(on) - IC





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