

RTGN131AP

TRANSISTOR WITH RESISTOR
FOR SWITCHING APPLICATION
SILICON NPN EPITAXIAL TYPE

DISCRIPTION

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

FEATURE

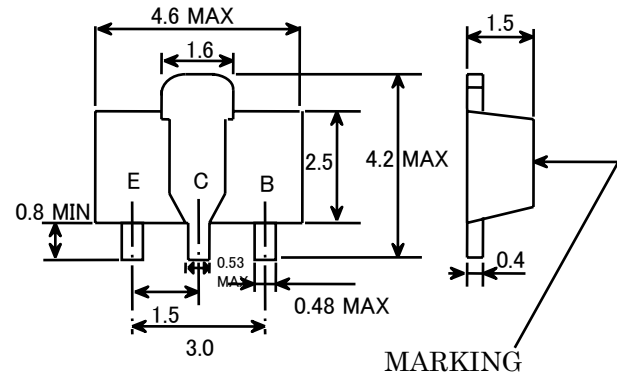
- Built-in bias resistor (R1=1k Ω ,R2=1k Ω)
- High collector current IC=1A
- Built-in zener diode between collector and base

APPLICATION

Motor driver circuit

OUTLINE DRAWING

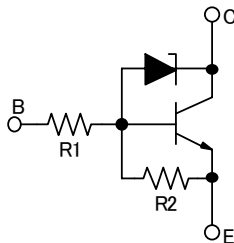
Unit:mm



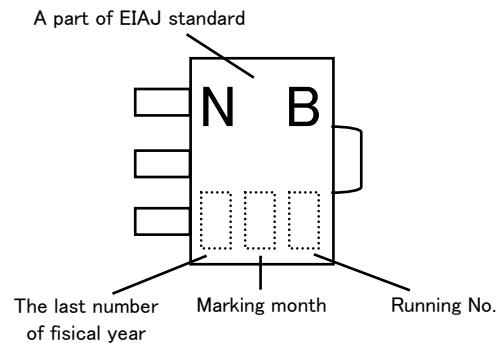
TERMINAL CONNECTOR

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

〈SMALL-SIGNAL TRANSISTOR〉

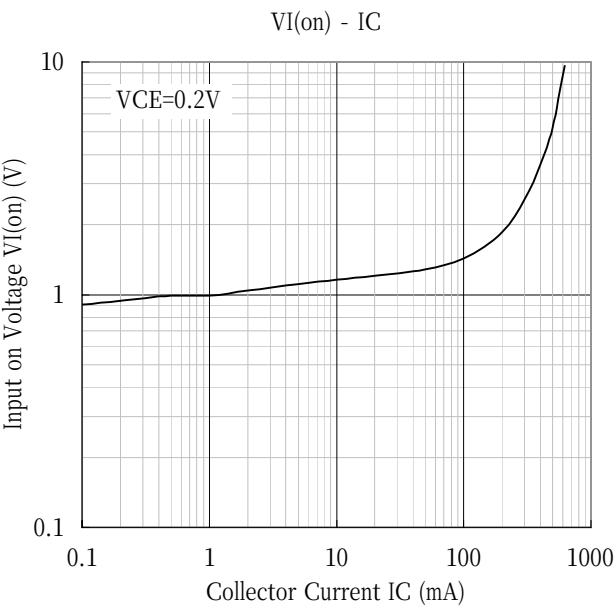
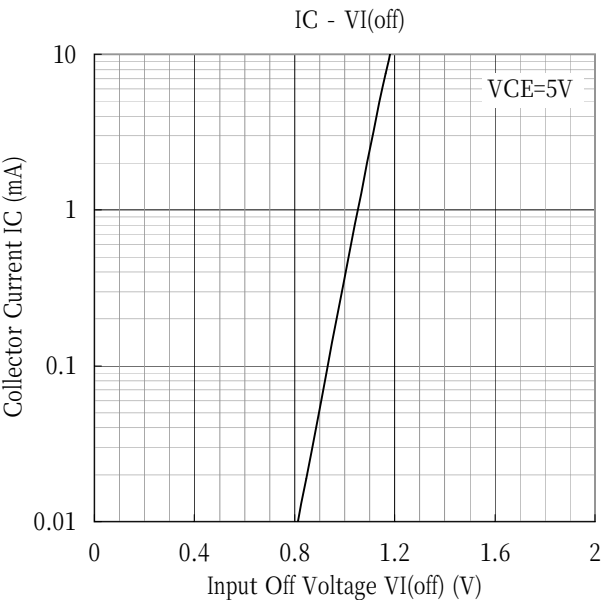
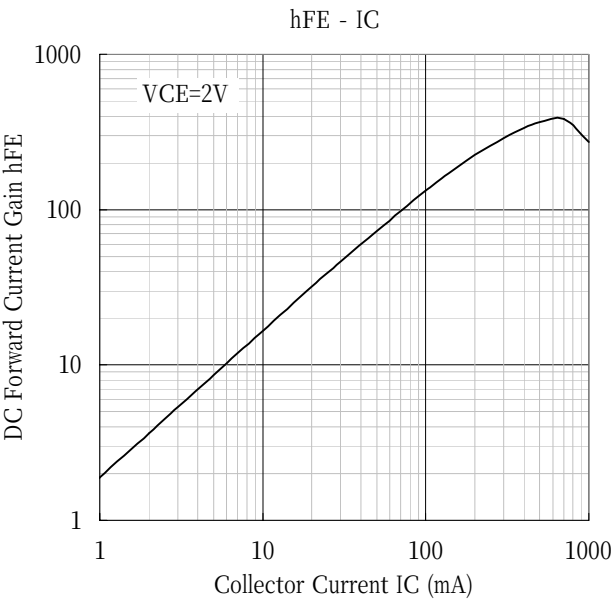
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ELECTRICAL CHARACTERISTICS (Ta=25°C)

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)	$V_{CE}=5V, I_C=100 \mu A$	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	K Ω
R_2	Emitter – Base resistor	—	0.7	1	1.3	K Ω

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