RTGN14BAC1

TRANSISTOR WITH RESISTOR
FOR SWITHING APPLICATION
SILICON NPN EPITAXIAL TYPE

DISCRIPTION

RTGN14BAC1 is a one chip transistor with built-in bias transistor.

FEATURE

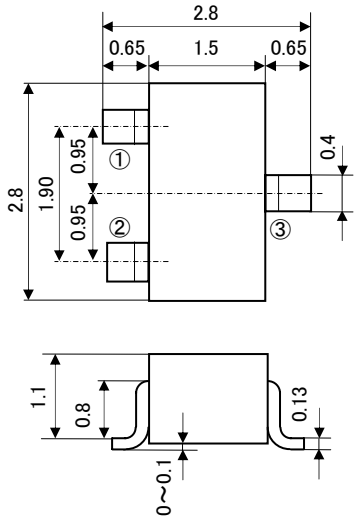
- Built-in bias resistor （R2=10kΩ）
- High collector current　IC=1A
- Built-in zener diode between collector and base

APPLICATION

Motor driver circuit

OUTLINE DRAWING

Unit:mm



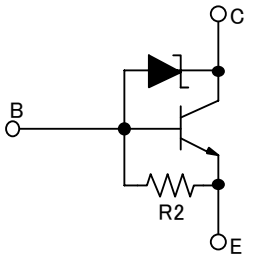
Terminal
Connector
① BASE
② EMITTER
③ COLLECTOR

JEITA:SC-59
JEDEC:Similar to TO-236

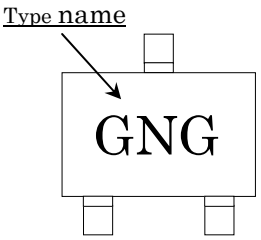
MAXIMUM RATING(Ta=25℃)

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	200	mW
T_j	Junction temperature	+150	℃
T_{stg}	Storage temperature	-55～+150	℃

EQUIVALENT CIRCUIT



MARKING



ELECTRICAL CHARACTERISTICS(Ta=25℃)

Symbol	Parameter	Test conditions	Limits			Unit
			Min	Typ	Max	
I_{CBO}	Collector cut off current	V_{CB}=40V, IE=0	—	—	0.1	μA
V_{IL}	Input voltage (OFF)	V_{CE}=5V, I_C=100μA	0.3	—	—	V
hFE1	DC forward current gain	V_{CE}=2V, I_C=0.1A	200	—	—	—
hFE2	DC forward current gain	V_{CE}=2V, I_C=0.5A	300	—	—	—
hFE3	DC forward current gain	V_{CE}=2V, I_C=1A	200	—	—	—
$V_{CE(sat)}$	C to E saturation voltage	Ic=500mA,IB=5mA	—	—	400	mV
R_2	Emitter – Base resistor	—	7	10	13	kΩ

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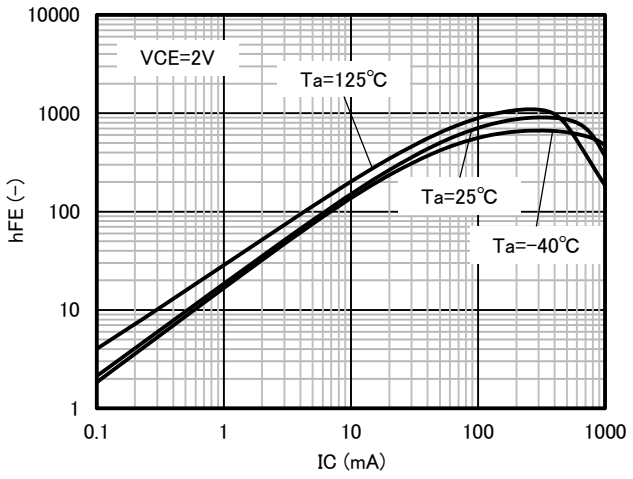
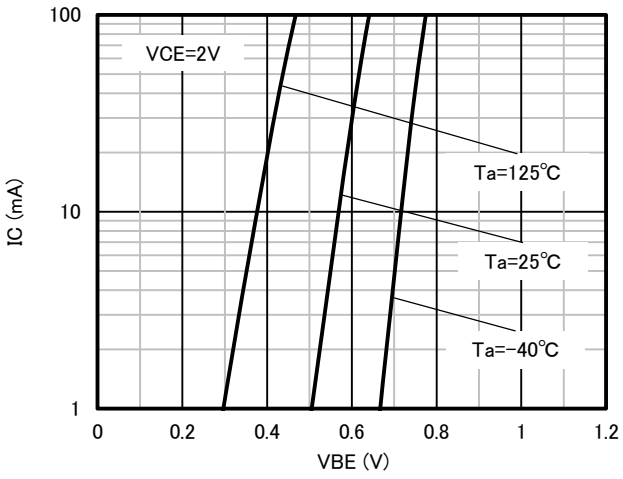
TYPCAL CHARACERISTICS

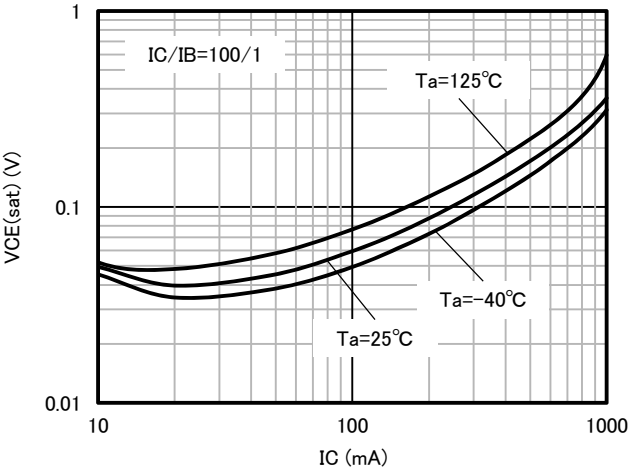
hFE-IC



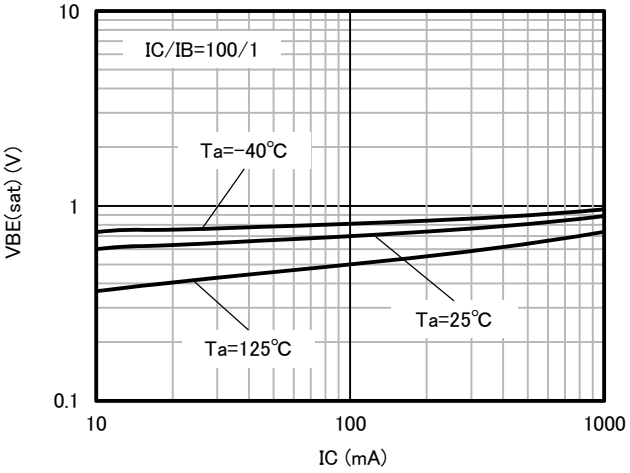
IC-VBE



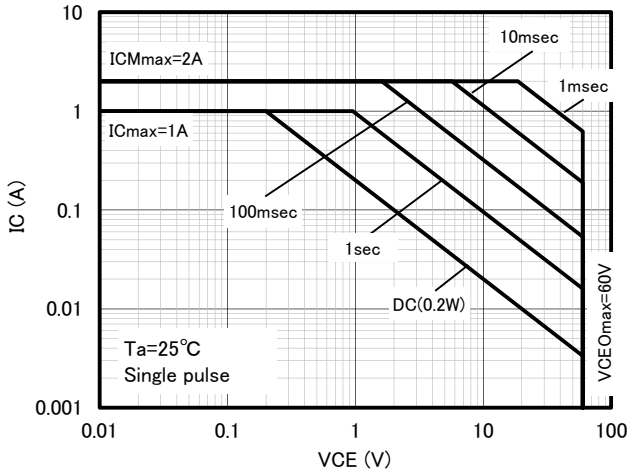
VCE(sat)-IC



VBE(sat)-IC



ASO



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