PRELIMINARY

Notice : This is not a final specification
Some parametric are subject to change.

〈SMALL-SIGNAL TRANSISTOR〉

RTBN141AP1

TRANSISTOR WITH RESISTOR
FOR SWITHING APPLICATION
SILICON NPN EPITAXIAL TYPE

DESCRIPTION

RTBN141AP1 is a one chip transistor with built-in bias transistor.

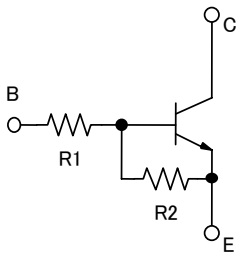
FEATURE

- Built-in bias resistor （R1=10kΩ,R2=10kΩ）
- High collector current （IC=1A）
- Small package for easy mounting.

APPLICATION

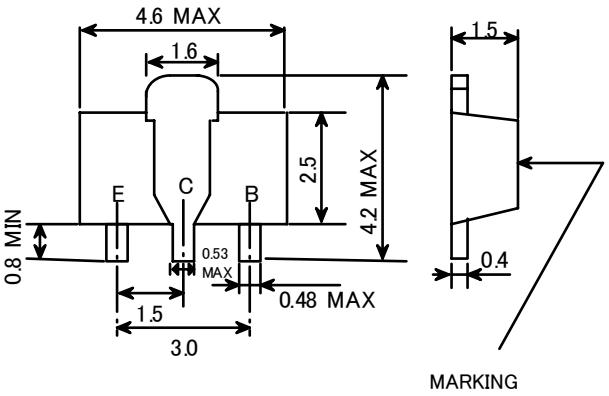
Switching.

EQUAIVALENT CIRCUIT



OUTLINE DRAWING

UNIT : mm



TERMINAL CONNECTOR

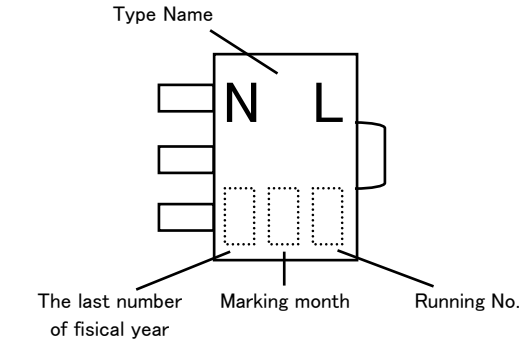
E : EMITTER
C : COLLECTOR
B : BASE

JEITA:SC-62
JEDEC:SOT-89

MAXIMUM RATING (Ta=25℃)

SYMBOL	PARAMETER	RATING	UNIT
V_{CBO}	Collector to Base voltage	80	V
V_{EBO}	Emitter to Base voltage	10	V
V_{CEO}	Collector to Emitter voltage	60	V
I_C	Collector current	1	A
I_{CM}	Peak collector current	2	A
P_{CM}	Collector dissipation(Ta=25℃)	500	mW
T_j	Junction temperature	+150	℃
T_{stg}	Storage temperature	−55～+150	℃

MARKING



ELECTRICAL CHARACTERISTICS (Ta=25℃)

SYMBOL	PARAMETER	TEST CONDITIONS	LIMITS			UNIT
			MIN	TYP	MAX	
I_{CBO}	Collector cut off current	V_{CE}=60V, I_E=0	—	—	0.1	μA
VI(on)	Input on voltage	V_{CE}=0.2V, I_C=0.1A	—	—	5.0	V
VI(off)	Input off voltage	V_{CE}=5V, I_C=100μA	0.3	—	—	V
hFE1	DC forward current gain1	V_{CE}=2V, I_C=0.1A	200	—	—	—
hFE2	DC forward current gain2	V_{CE}=2V, I_C=0.5A	300	—	—	—
hFE3	DC forward current gain3	V_{CE}=2V, I_C=1A	200	—	—	—
R1	Input resistor	—	7	10	13	kΩ
R2	Emitter-base resistor	—	7	10	13	kΩ

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