

RT2P13M

Composite Transistor With Resistor
For Switching Application
Silicon PNP Epitaxial Type

DESCRIPTION

RT2P13M is composite transistor with built-in bias resistor.

FEATURE

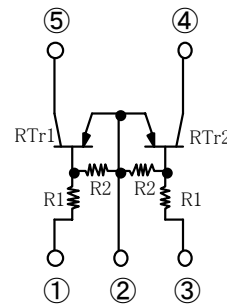
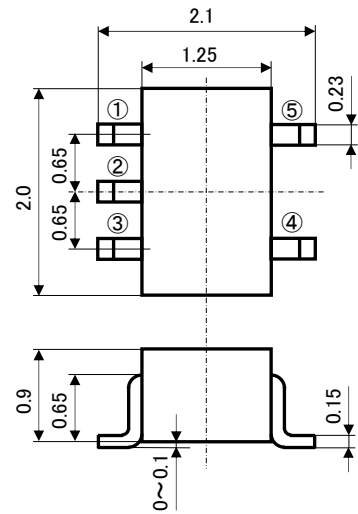
Built-in bias resistor ($R_1=10k\Omega$, $R_2=4.7k\Omega$)
Mini package for easy mounting

APPLICATION

Inverted circuit, Switching circuit,
Interface circuit, Driver circuit

OUTLINE DRAWING

Unit: mm



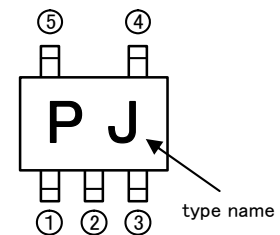
TERMINAL CONNECTOR
①: BASE1
②: EMITTER (COMMON)
③: BASE2
④: COLLECTOR2
⑤: COLLECTOR1

JEITA: SC-88A
JEDEC: —

MAXIMUM RATING ($T_a=25^\circ\text{C}$) (RTTr1, RTTr2 COMMON)

SYMBOL	PARAMETER	RATING	UNIT
VCBO	Collector to Base voltage	-50	V
VEBO	Emitter to Base voltage	-10	V
VCEO	Collector to Emitter voltage	-50	V
V _{IN}	Input voltage	-30	V
I _C	Collector current	-100	mA
I _{CM}	Peak Collector current	-200	mA
P _T	Total dissipation	200	mW
T _j	Junction temperature	+150	°C
T _{stg}	Storage temperature	-55~+150	°C

MARKING



ELECTRICAL CHARACTERISTICS ($T_a=25^\circ\text{C}$) (RTTr1, RTTr2 COMMON)

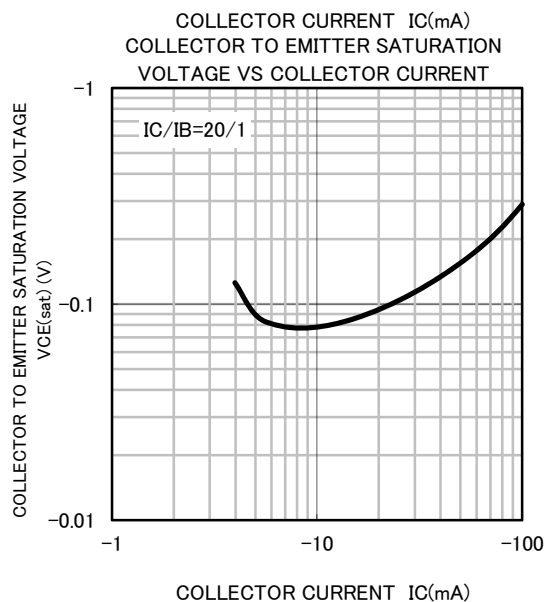
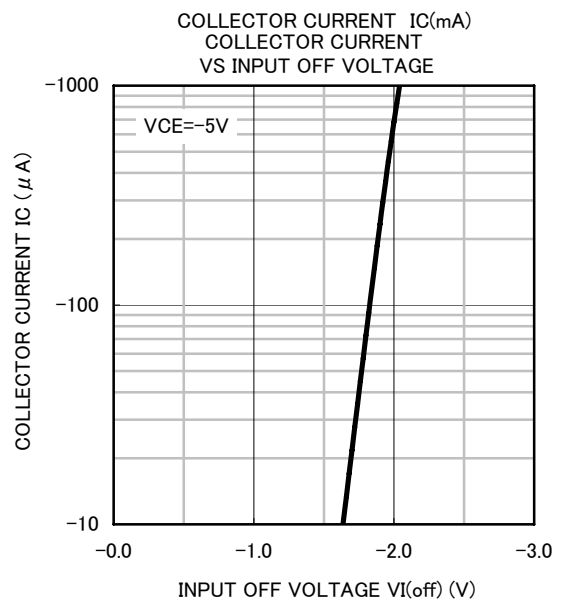
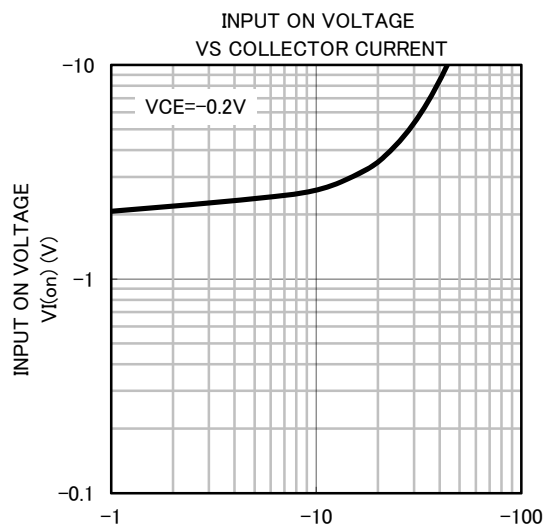
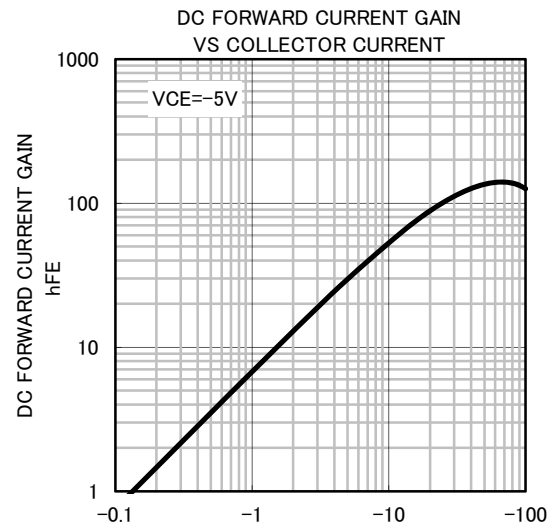
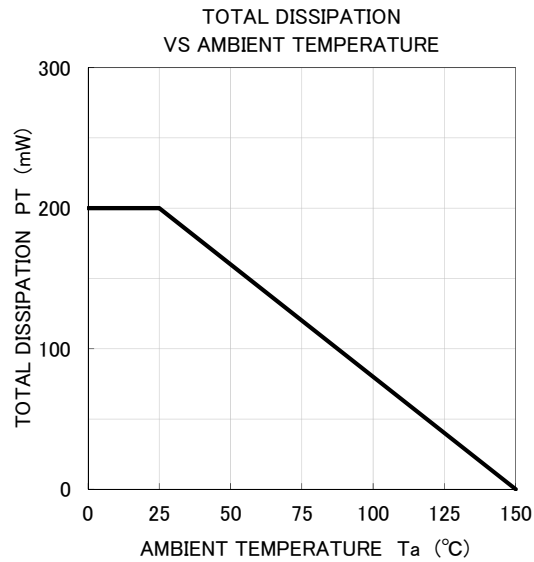
SYMBOL	PARAMETER	TEST CONDITIONS	LIMITS			UNIT
			MIN	TYP	MAX	
V _{(BR)CEO}	Collector to Emitter breakdown voltage	I _C =-100 μA, R _{BE} =∞	-50	—	—	V
I _{CBO}	Collector cut off current	V _{CB} =-50V, I _E =0	—	—	-0.1	μA
I _{EBO}	Emitter cut off current	V _{EB} =-5V, I _C =0	-255	-340	-493	μA
h _{FE}	DC forward current gain	V _{CE} =-5V, I _C =-10mA	24	—	—	—
V _{CE(sat)}	Collector to Emitter saturation voltage	I _C =-10mA, I _B =-0.5mA	—	—	-0.3	V
V _{I(ON)}	Input on voltage	V _{CE} =-0.2V, I _C =-5mA	—	-2.1	-3.8	V
V _{I(OFF)}	Input off voltage	V _{CE} =-5V, I _C =-100 μA	-1.3	-1.7	—	V
R ₁	Input resistor	—	7	10	13	kΩ
R ₂ /R ₁	Resistor ratio	—	0.37	0.47	0.57	—
f _T	Gain band width product	V _{CE} =-6V, I _E =10mA	—	150	—	MHz

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TYPICAL CHARACTERISTICS

($T_a=25^\circ\text{C}$)(R_{Tr1}, R_{Tr2} COMMON)



COLLECTOR CURRENT I_C (mA)



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