RT2P09M

COMPOSITE TRANSISTOR WITH RESISTOR
FOR SWITCHING APPLICATION
SILICON PNP EPITAXIAL TYPE

DESCRIPTION

RT2P09M is a composite transistor with built-in bias resistor

FEATURE

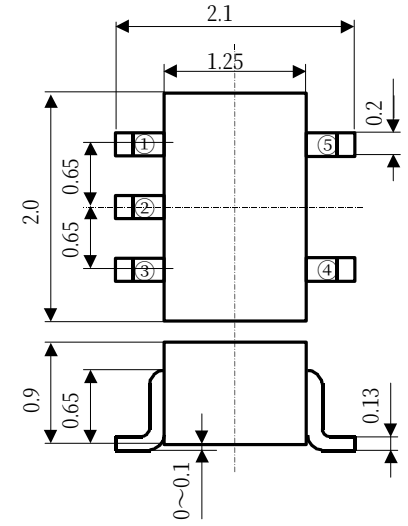
●Built-in bias resistor (R1=2.2 KΩ , R2=47KΩ)

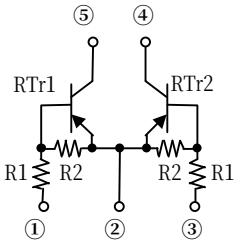
●Mini package for easy mounting

APPLICATION

Inverted circuit , switching circuit , interface circuit , driver circuit

OUTLINE DRAWING Unit:mm





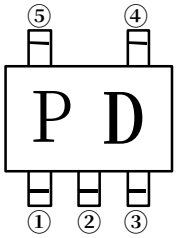
TERMINAL CONNECTOR
①: BASE1
②: EMITTER (COMMON)
③: BASE2
④: COLLECTOR2
⑤: COLLECTOR1

JEITA: SC-88A

MAXIMUM RATINGS (Ta=25°C) (RTr1、RTr2)

Symbol	Parameter	Ratings	Unit
V_{CBO}	Collector to Base voltage	-50	V
V_{EBO}	Emitter to Base voltage	-6	V
V_{CEO}	Collector to Emitter voltage	-50	V
I_C	Collector current	-100	mA
I_{CM}	Peak Collector current	-200	mA
P_C	Collector dissipation (Total Ta=25°C)	150	mW
T_j	Junction temperature	+150	°C
T_{stg}	Storage temperature	-55～+150	°C

MARKING



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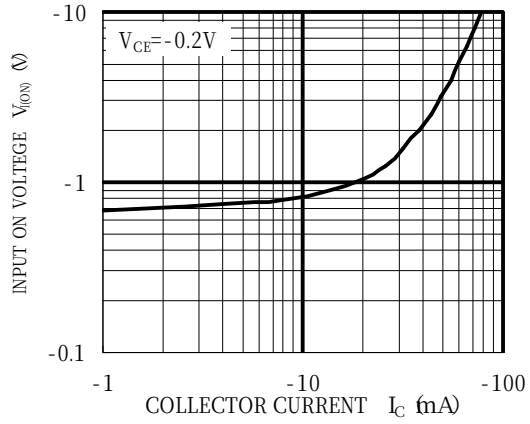
ELECTRICAL CHARACTERISTICS (Ta=25°C) (RTr1, RTr2)

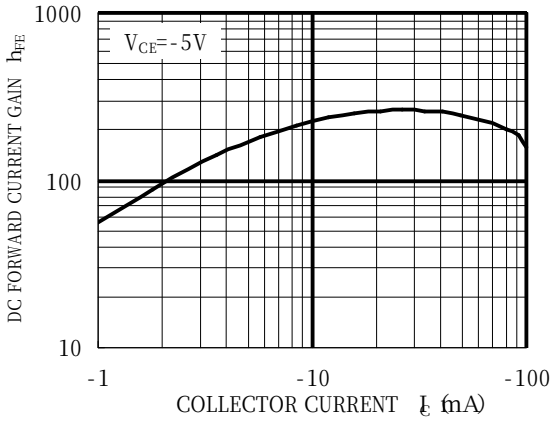
Symbol	Parameter	Test conditions	Limits			Unit
			Min	Typ	Max	
$V_{(BR)CBO}$	Collector to Emitter break down voltage	I_C=-100 μA, R_{BE}=∞	-50	-	-	V
I_{CBO}	Collector cut off current	V_{CB}=-50V, I_E=0	-	-	-0.1	μA
h_{FE}	DC forward current gain	V_{CE}=-5V, IC=-10mA	80	-	-	-
$V_{CE(sat)}$	Collector to Emitter saturation voltage	I_C=-10mA, I_B=-0.5mA	-	-0.1	-0.3	V
$V_{I(ON)}$	Input on voltage	V_{CE}=-0.2V, I_C=-5mA	-	-0.7	-1.1	V
$V_{I(OFF)}$	Input off voltage	V_{CE}=-5V, I_C=-100 μA	-0.5	-0.6	-	V
R_1	Input resistor		1.5	2.2	2.9	KΩ
R_2/R_1	Resistor ratio		-	22	-	-
f_T	Gain band width product	V_{CE}=-6V, I_E=10mA		150		MHz

TYPICAL CHARACTERISTICS (Tr1, Tr2)

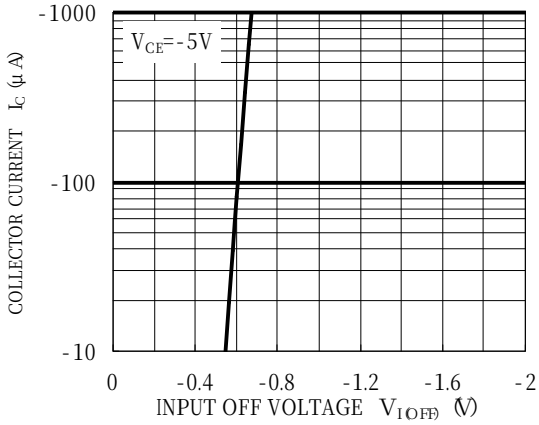
INPUT ON VOLTAGE VS.COLLECTOR CURRENT



DC FORWARD CURRENT GAIN VS.COLLECTOR CURRENT



COLLECTOR CURRENT VS.INPUT OFF VOLTAGE



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