RT1P137P

Transistor With Resistor
For Switching Application
Silicon PNP Epitaxial Type

DESCRIPTION

RT1P137P is a one chip transistor
with built-in bias resistor, NPN type is RT1N137P.

FEATURE

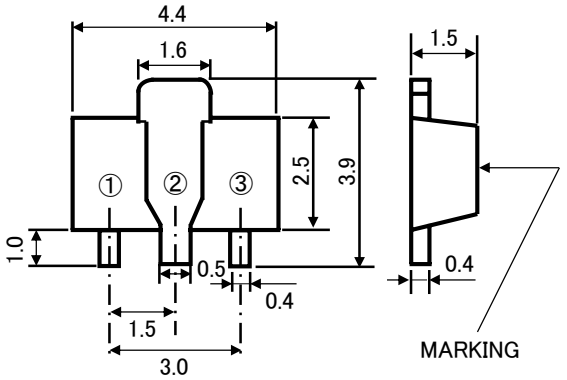
Built-in bias resistor (R_1=1kΩ, R_2=22kΩ)
High collector current (Ic=-1A)
Low VCE(sat) VCE(sat)=-0.3V
(@I_C=-300mA/I_B=-3mA)

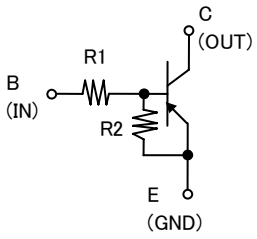
APPLICATION

Inverted circuit, Switching circuit, Interface circuit,
Driver circuit

OUTLINE DRAWING

Unit: mm



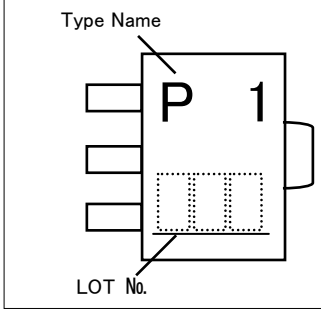


JEITA: SC-62
JEDEC: SOT-89
Terminal Connector
①: EMITTER
②: COLLECTOR
③: BASE

MAXIMUM RATING (Ta=25℃)

SYMBOL	PARAMETER	RATING	UNIT
V_{CBO}	Collector to Base voltage	-40	V
V_{EBO}	Emitter to Base voltage	-6	V
V_{CEO}	Collector to Emitter voltage	-40	V
I_C	Collector current	-1	A
I_{CM}	Peak Collector current	-2	A
P_C	Collector dissipation	500	mW
T_j	Junction temperature	150	℃
T_{stg}	Storage temperature	-55～+150	℃

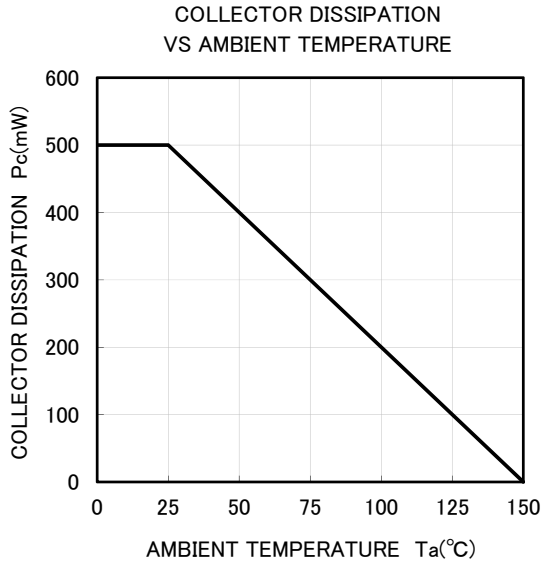
MARKING

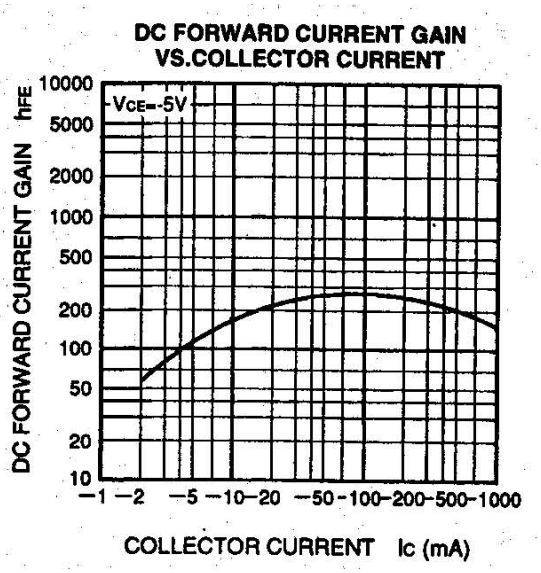


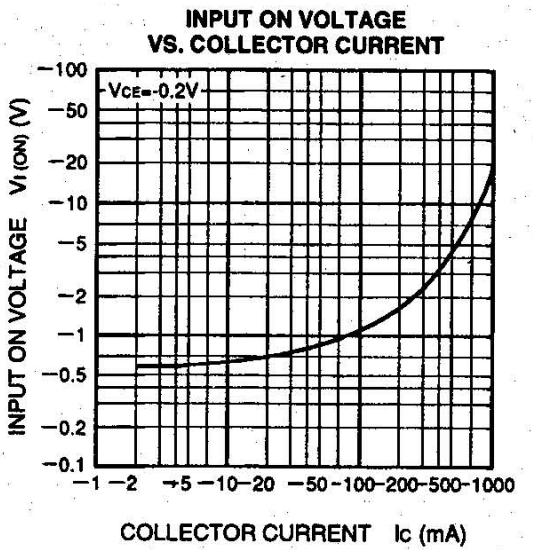
ELECTRICAL CHARACTERISTICS (Ta=25℃)

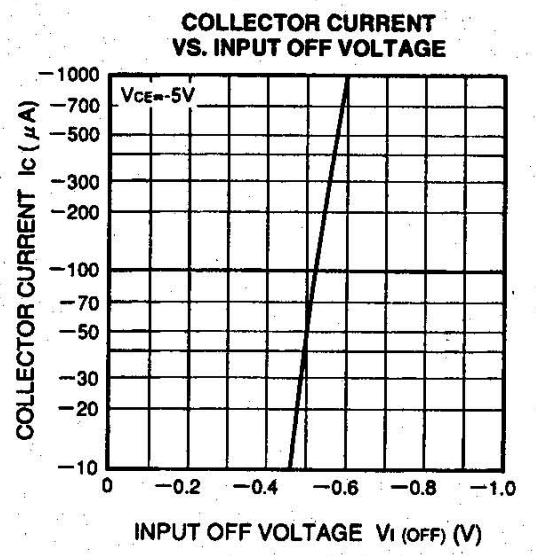
SYMBOL	PARAMETER	TEST CONDITION	LIMIT			UNIT
			MIN	TYP	MAX	
$V_{(BR)CEO}$	C to E breakdown voltage	I_C=-1mA, R_{BE}=∞	-40	—	—	V
I_{CBO}	Collector cut off current	V_{CB}=-40V, I_E=0	—	—	-0.1	μA
I_{EBO}	Emitter cut off current	V_{EB}=-5V, I_C=0	-168	-217	-310	μA
h_{FE}	DC forward current gain	V_{CE}=-5V, I_C=-100mA	100	—	—	—
$V_{CE(sat)}$	C to E saturation voltage	I_C=-300mA, I_B=-3mA	—	-0.1	-0.3	V
$V_{I(ON)}$	Input on voltage	V_{CE}=-0.2V, I_C=-300mA	—	-2.4	-4.0	V
$V_{I(OFF)}$	Input off voltage	V_{CE}=-5V, I_C=-100μA	-0.4	-0.53	—	V
R_1	Input resistor	—	0.7	1.0	1.3	kΩ
R_2/R_1	Resistor ratio	—	20	22	24	—
f_T	Gain band width product	V_{CE}=-6V, I_E=10mA	—	130	—	MHz

TYPICAL CHARACTERISTICS(Ta=25℃)









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