

RT1P137S

Transistor With Resistor
For Switching Application
Silicon PNP Epitaxial Type

DESCRIPTION

RT1P137S is a one chip transistor
with built-in bias resistor, NPN type is RT1N137S.

FEATURE

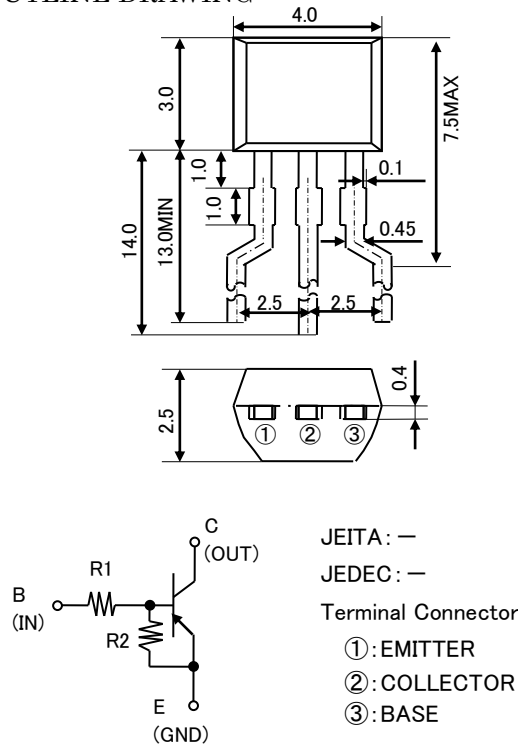
Built-in bias resistor ($R_1=1k\Omega$, $R_2=22k\Omega$)
High collector current ($I_C=-1A$)
Low $V_{CE(sat)}$ $V_{CE(sat)}=-0.3V$
(@ $I_C=-300mA/I_B=-3mA$)

APPLICATION

Inverted circuit, Switching circuit, Interface circuit,
Driver circuit

OUTLINE DRAWING

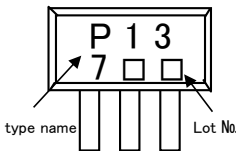
Unit: mm



MAXIMUM RATING (Ta=25°C)

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	600	mW
T_j	Junction temperature	+150	°C
T_{stg}	Storage temperature	-55~+150	°C

MARKING



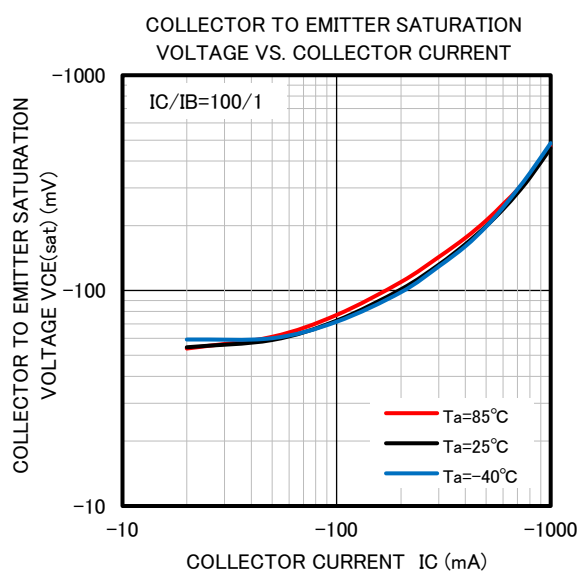
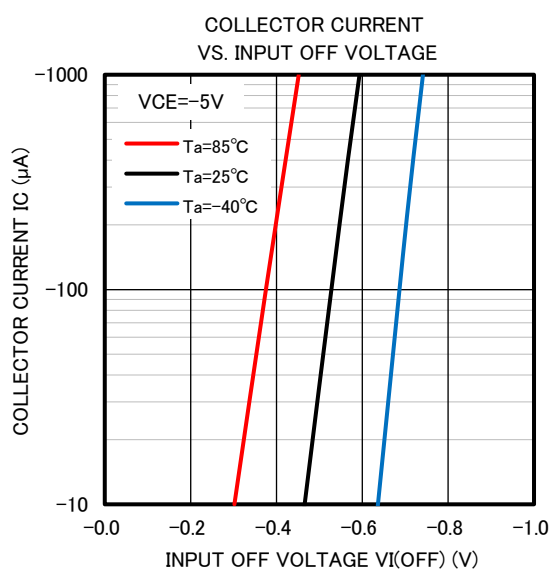
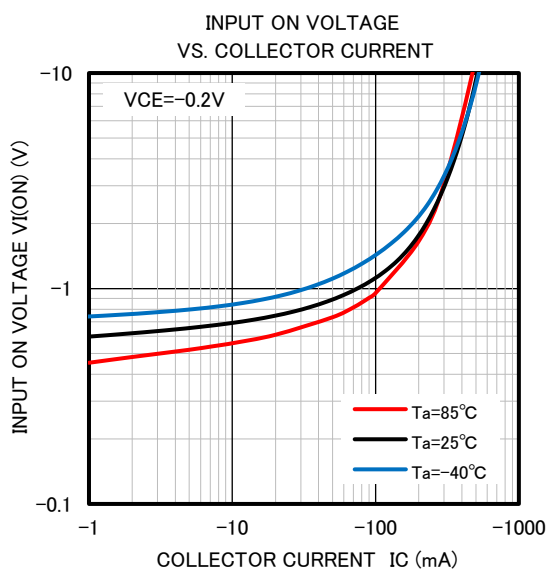
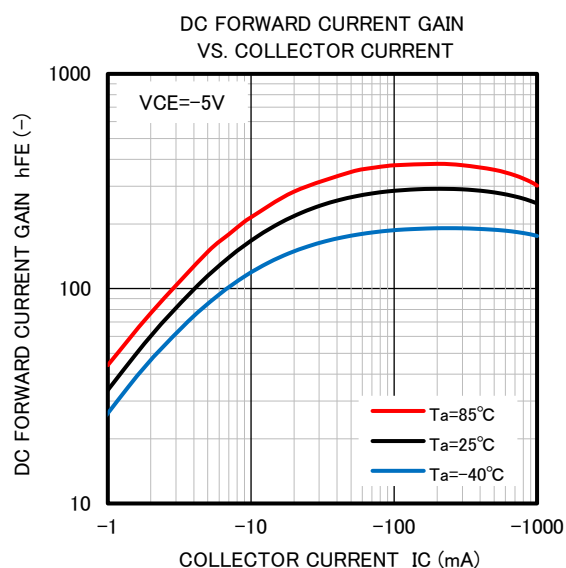
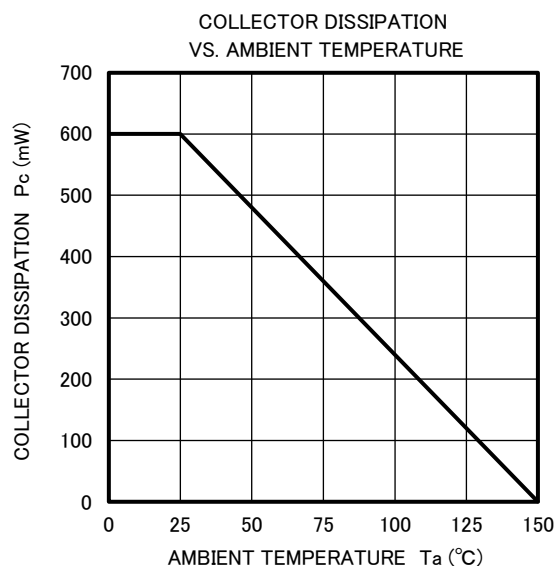
ELECTRICAL CHARACTERISTICS (Ta=25°C)

SYMBOL	PARAMETER	TEST CONDITION	LIMIT			UNIT
			MIN	TYP	MAX	
$V_{(BR)CEO}$	C to E breakdown voltage	$I_C=-1mA$, $R_{BE}=\infty$	-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	$V_{CE}=-5V$, $I_C=-100\mu A$	-0.4	-0.53	—	V
R_1	Input resistor	—	0.7	1.0	1.3	$k\Omega$
R_2/R_1	Resistor ratio	—	20	22	24	—
f_T	Gain band width product	$V_{CE}=-6V$, $I_E=10mA$	—	130	—	MHz

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TYPICAL CHARACTERISTICS



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