

RT1P237X SERIES

<Transistor>

Transistor With Resistor

For Switching Application

Silicon PNP Epitaxial Type

DESCRIPTION

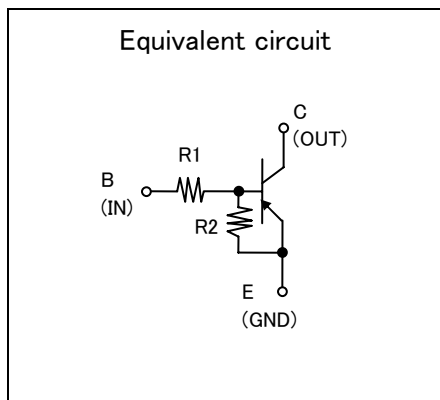
RT1P237X is a one chip transistor with built-in bias resistor, NPN type is RT1N237X.

FEATURE

• Built-in bias resistor ($R1=2.2k\Omega$, $R2=47k\Omega$).

APPLICATION

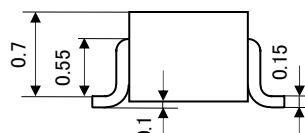
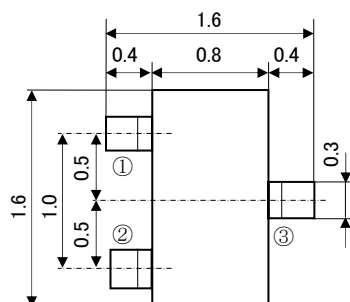
Inverted circuit, switching circuit, interface circuit, driver circuit.



OUTLINE DRAWING

UNIT : mm

RT1P237U

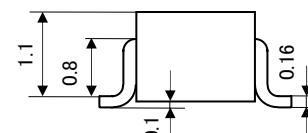
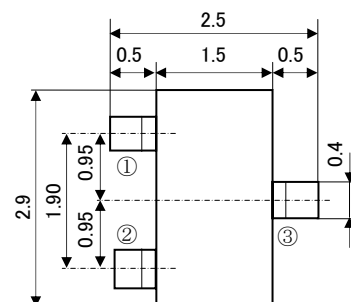


JEITA: —
JEDEC: —

Terminal Connector

- ①: Base
- ②: Emitter
- ③: Collector

RT1P237C

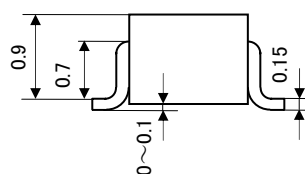
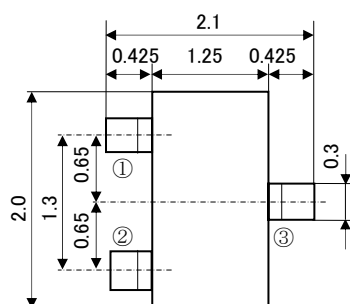


JEITA: SC-59
JEDEC: Similar to TO-236

Terminal Connector

- ①: Base
- ②: Emitter
- ③: Collector

RT1P237M

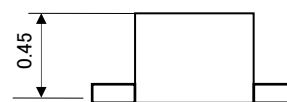
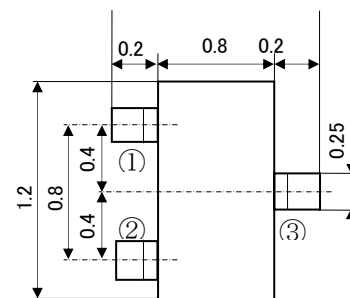


JEITA: SC-70
JEDEC: —

Terminal Connector

- ①: Base
- ②: Emitter
- ③: Collector

RT1P237T

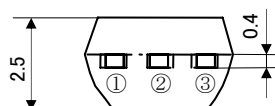
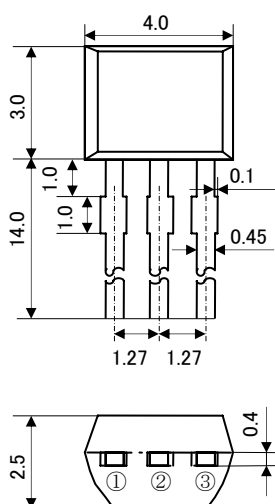


JEITA: —, JEDEC: —
ISAHAYA: T-USM

Terminal Connector

- ①: Base
- ②: Emitter
- ③: Collector

RT1P237S



JEITA: —
JEDEC: —

- ①: Emitter
- ②: Collector
- ③: Base

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<Transistor>

Transistor With Resistor
For Switching Application
Silicon PNP Epitaxial Type

MAXIMUM RATING (Ta=25°C)

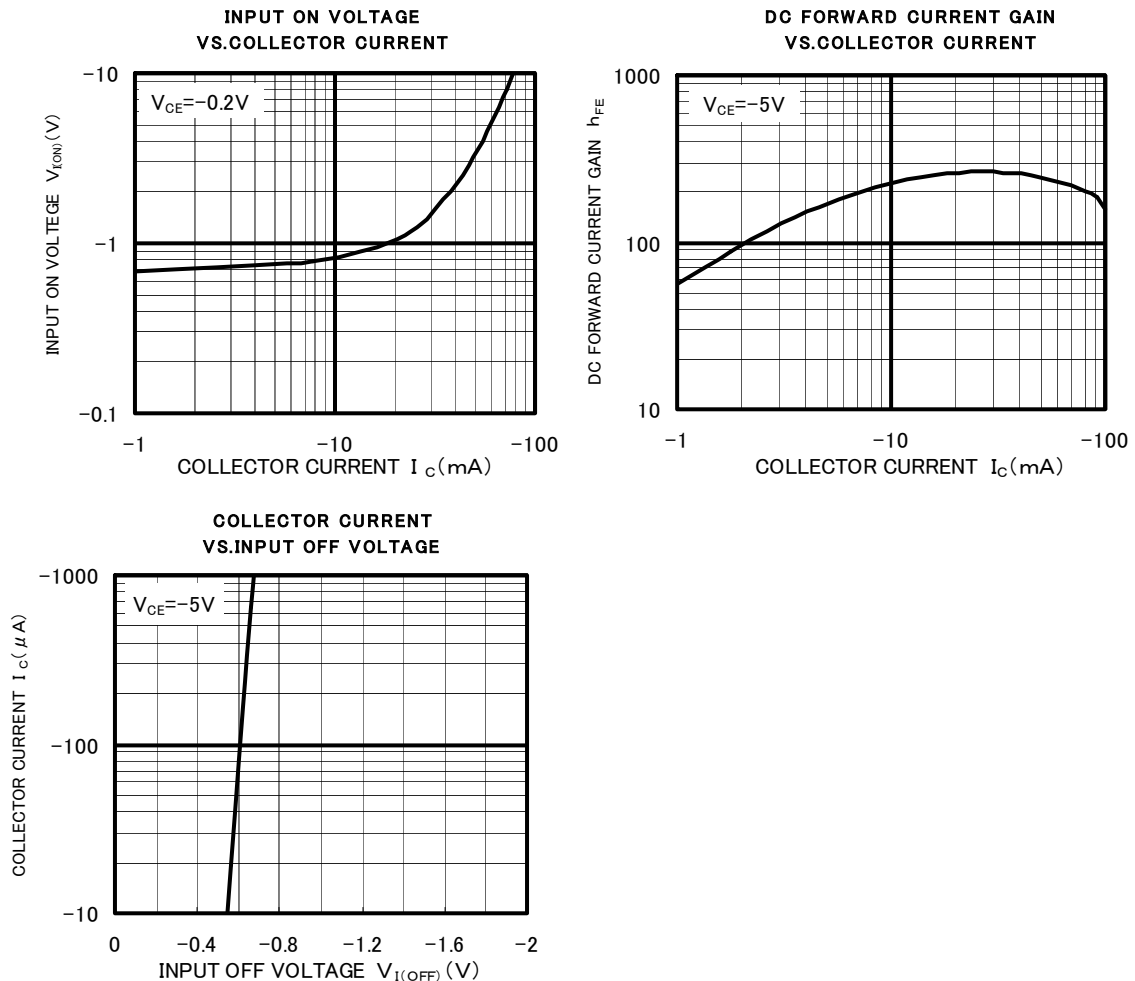
SYMBOL	PARAMETER	RATING					UNIT
		RT1P237T	RT1P237U	RT1P237M	RT1P237C	RT1P237S	
V_{CBO}	Collector to Base voltage	-50					V
V_{EBO}	Emitter to Base voltage	-6					V
V_{CEO}	Collector to Emitter voltage	-50					V
I_C	Collector current	-100					mA
I_{CM}	Peak Collector current	-200					mA
P_C	Collector dissipation(Ta=25°C)	125(※)	150	200	450	mW	
T_j	Junction temperature	+125	+150			°C	
T_{stg}	Storage temperature	-55~+125		-55~+150		°C	

(※) package mounted on 9mm × 19mm × 1mm glass-epoxy substrate.

ELECTRICAL CHARACTERISTICS (Ta=25°C)

SYMBOL	PARAMETER	TEST CONDITION	LIMIT			UNIT
			MIN	TYP	MAX	
$V_{(BR)CEO}$	C to E break down voltage	$I_C = -100 \mu A, R_{BE} = \infty$	-50			V
I_{CBO}	Collector cut off current	$V_{CB} = -50V, I_E = 0$			-0.1	μA
h_{FE}	DC forward current gain	$V_{CE} = -5V, I_C = -10mA$	80			—
$V_{CE(sat)}$	C to E saturation voltage	$I_C = -10mA, I_B = -0.5mA$			-0.3	V
$V_{I(ON)}$	Input on voltage	$V_{CE} = -0.2V, I_C = -5mA$		-0.7	-1.1	V
$V_{I(OFF)}$	Input off voltage	$V_{CE} = -5V, I_C = -100 \mu A$	-0.5	-0.6		V
R_1	Input resistance		1.5	2.2	2.9	$k\Omega$
R_2/R_1	Resistance ratio		17	22	26	
f_T	Gain band width product	$V_{CE} = -6V, I_E = 10mA$		150		MHz

TYPICAL CHARACTERISTICS





Marketing division, Marketing planning department

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