

RT1P242X SERIES

〈Transistor〉

Transistor With Resistor
For Switching Application
Silicon PNP Epitaxial Type

DESCRIPTION

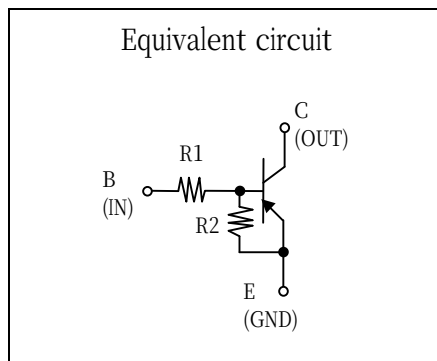
RT1P242X is a one chip transistor with built-in bias resistor,NPN type is RT1N242X.

FEATURE

- Built-in bias resistor ($R1=22k\Omega$, $R2=47k\Omega$).

APPLICATION

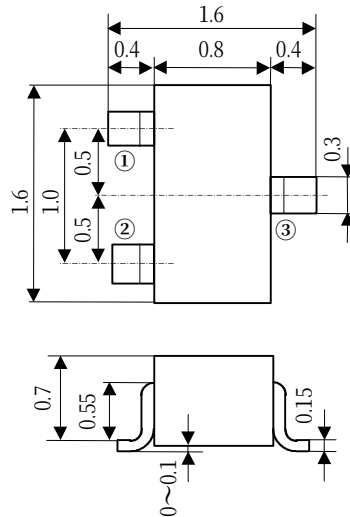
Inverted circuit,switching circuit,interface circuit, driver circuit.



OUTLINE DRAWING

UNIT : mm

RT1P242U



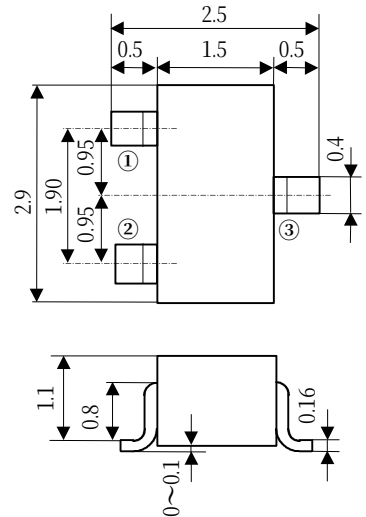
JEITA: —

JEDEC: —

Terminal Connector

- ①: Base
- ②: Emitter
- ③: Collector

RT1P242C



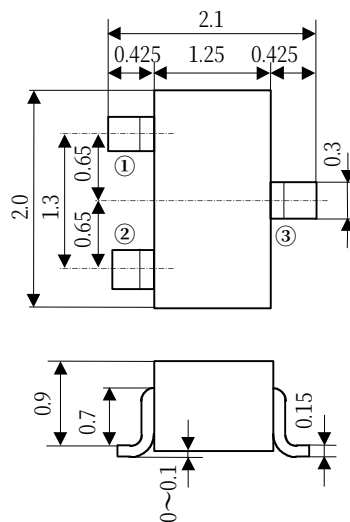
JEITA: SC-59

JEDEC: Similar to TO-236

Terminal Connector

- ①: Base
- ②: Emitter
- ③: Collector

RT1P242M



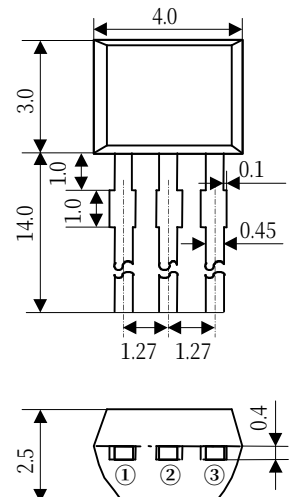
JEITA: SC-70

JEDEC: —

Terminal Connector

- ①: Base
- ②: Emitter
- ③: Collector

RT1P242S



JEITA: —

JEDEC: —

Terminal Connector

- ①: Emitter
- ②: Collector
- ③: Base

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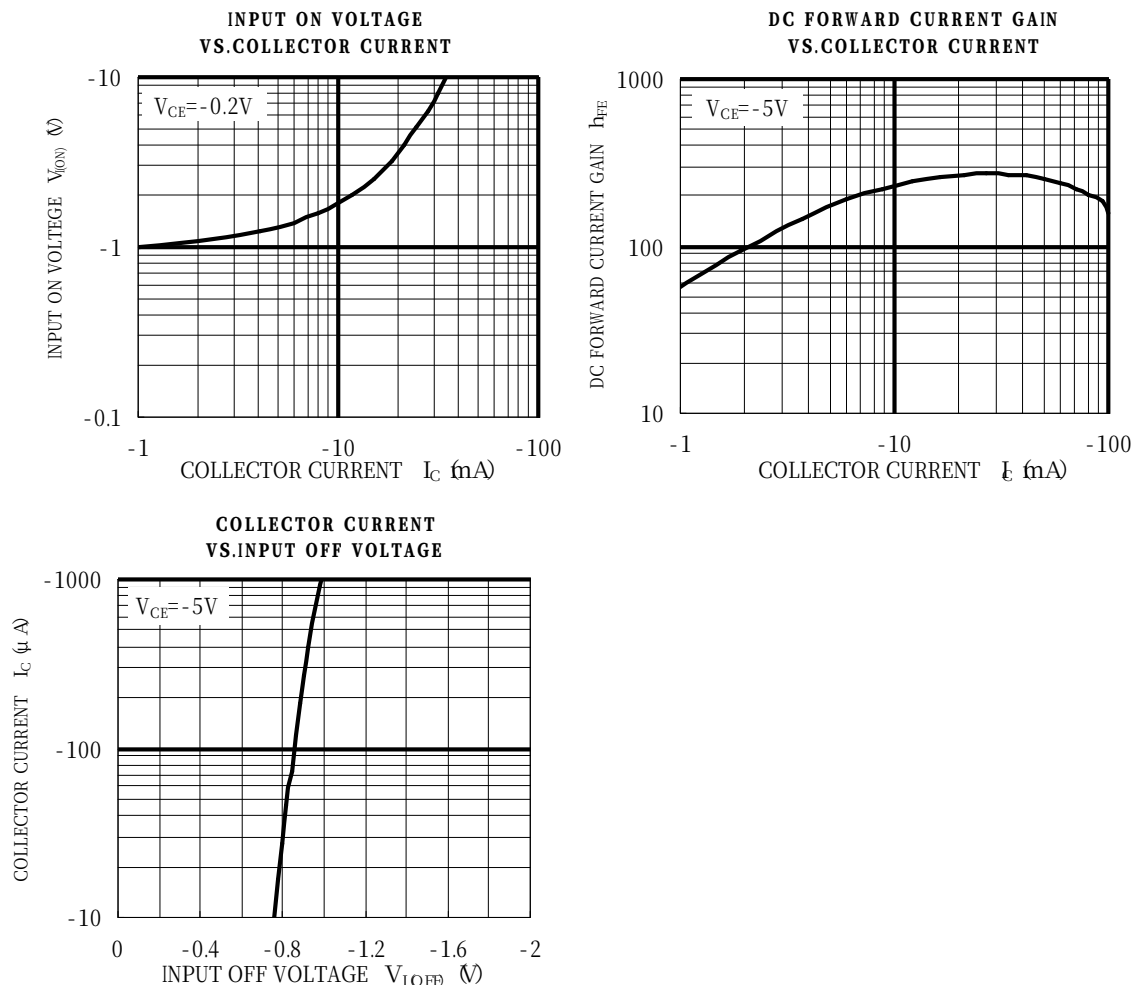
MAXIMUM RATING (Ta=25°C)

SYMBOL	PARAMETER	RATING				UNIT
		RT1P242U	RT1P242M	RT1P242C	RT1P242S	
V_{CBO}	Collector to Base voltage	-50				V
V_{EBO}	Emitter to Base voltage	-10				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)	150	200		450	mW
T_j	Junction temperature	+150	+150			°C
Tstg	Storage temperature	-55~+150		-55~+150		°C

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	$V_{CE} = -5V$, $I_C = -5mA$	68			—
$V_{CE(sat)}$	C to E saturation voltage	$I_C = -10mA$, $I_B = -0.5mA$			-0.3	V
$V_{I(ON)}$	Input on voltage	$V_{CE} = -0.2V$, $I_C = -5mA$		-1.2	-3.0	V
$V_{I(OFF)}$	Input off voltage	$V_{CE} = -5V$, $I_C = -100 \mu A$	-0.6	-0.8		V
R_1	Input resistance		15	22	29	k Ω
R_2/R_1	Resistance ratio		1.7	2.1	2.6	
f_T	Gain band width product	$V_{CE} = -6V$, $I_E = 10mA$		150		MHz

TYPICAL CHARACTERISTICS





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