

RT1P140X SERIES

〈Transistor〉

Transistor With Resistor

For Switching Application

Silicon PNP Epitaxial Type

DESCRIPTION

RT1P140X is a one chip transistor with built-in bias resistor, NPN type is RT1N140X.

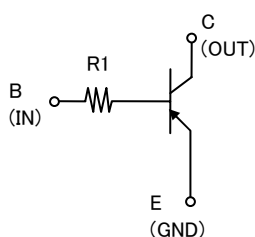
FEATURE

- Built-in bias resistor ($R1=10k\Omega$).

APPLICATION

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

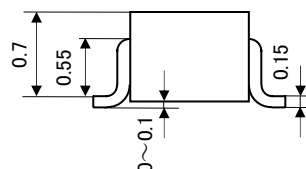
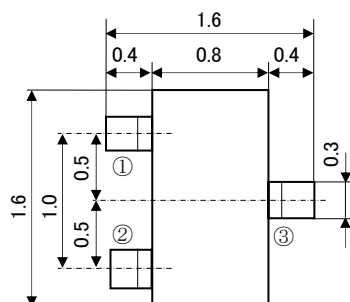
Equivalent circuit



OUTLINE DRAWING

UNIT : mm

RT1P140U



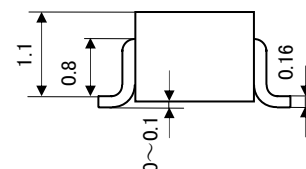
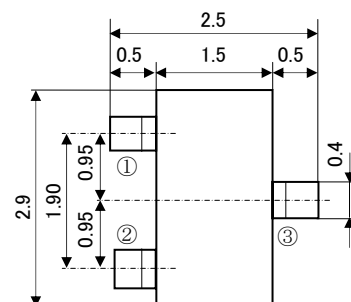
JEITA: —

JEDEC: —

Terminal Connector

- ①: Base
- ②: Emitter
- ③: Collector

RT1P140C



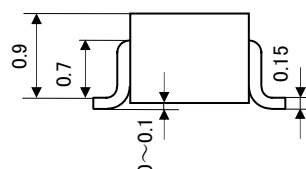
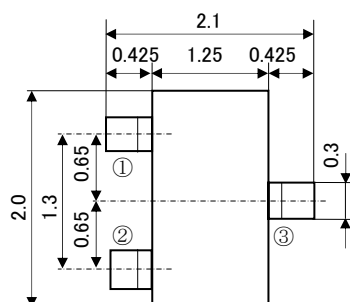
JEITA: SC-59

JEDEC: Similar to TO-236

Terminal Connector

- ①: Base
- ②: Emitter
- ③: Collector

RT1P140M



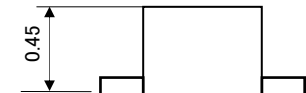
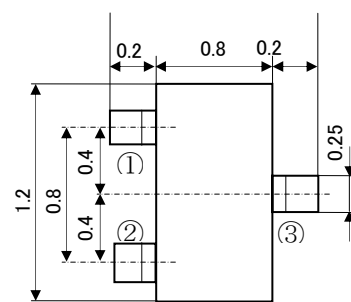
JEITA: SC-70

JEDEC: —

Terminal Connector

- ①: Base
- ②: Emitter
- ③: Collector

RT1P140T



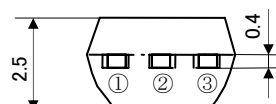
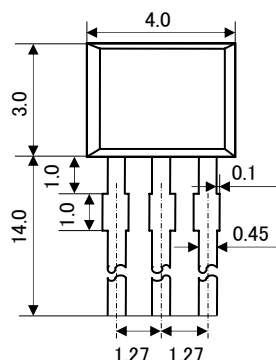
JEITA: —, JEDEC: —

ISAHAYA: —

Terminal Connector

- ①: Base
- ②: Emitter
- ③: Collector

RT1P140S



JEITA: —

JEDEC: —

Terminal Connector

- ①: Emitter
- ②: Collector
- ③: Base

RT1P140X SERIES

Transistor With Resistor
For Switching Application
Silicon PNP Epitaxial Type

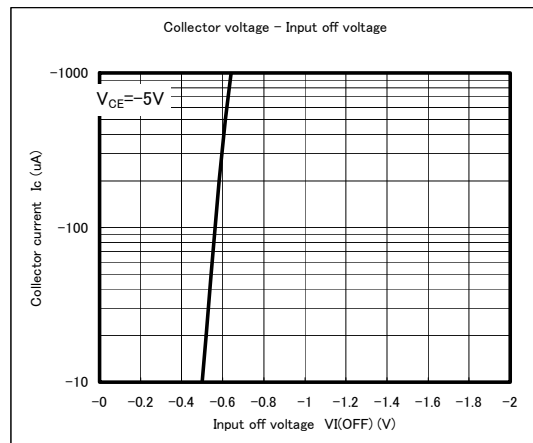
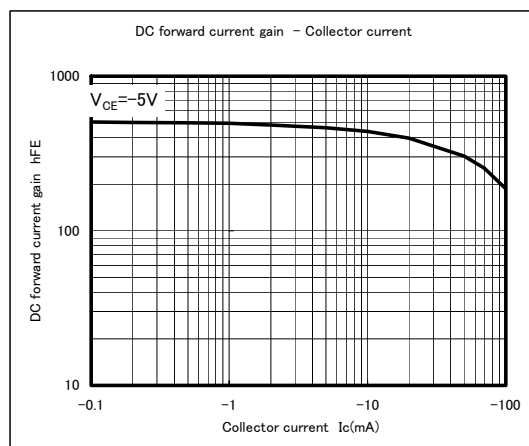
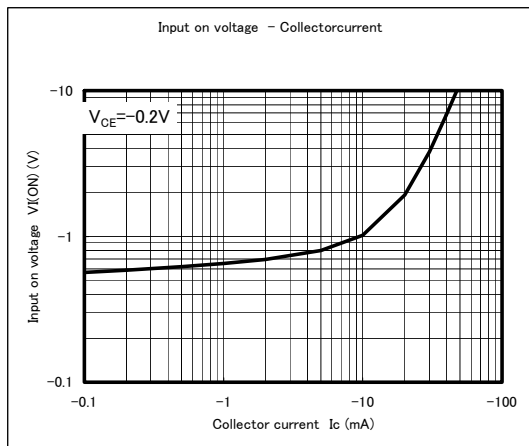
MAXIMUM RATING (Ta=25°C)

SYMBOL	PARAMETER	RATING					UNIT
		RT1P140T	RT1P140U	RT1P140M	RT1P140C	RT1P140S	
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
Tj	Junction temperature	+125	+150				°C
Tstg	Storage temperature	-55~+125		-55~+150			°C

ELECTRICAL CHARACTERISTICS (Ta=25°C) (※) package mounted on 9mm×19mm×1mm glass-epoxy substrate.

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	$V_{CE} = -5V$, $I_C = -1mA$	100			—
$V_{CE(sat)}$	C to E saturation voltage	$I_C = -10mA$, $I_B = -0.5mA$			-0.3	V
R_1	Input resistance		7	10	13	$k\Omega$
f_T	Gain band width product	$V_{CE} = -6V$, $I_E = 10mA$		150		MHz

TYPICAL CHARACTERISTICS





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