

RT1N140X SERIES

⟨Transistor⟩

Transistor With Resistor

For Switching Application

Silicon NPN Epitaxial Type

DESCRIPTION

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

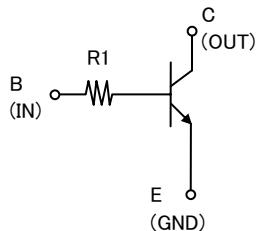
FEATURE

- Built-in bias resistor ($R_1=10k\Omega$)

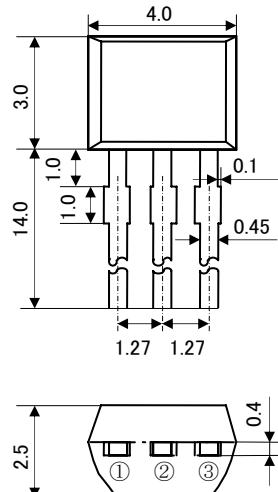
APPLICATION

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

Equivalent circuit



RT1N140S



JEITA:—
JEDEC:—

Terminal Connector
①: Emitter
②: Collector
③: Base

JEITA:—

JEDEC:—

Terminal Connector

- ①: Base
- ②: Emitter
- ③: Collector

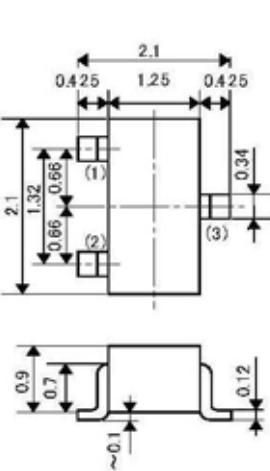
JEITA: SC-59

JEDEC: Similar to TO-236

Terminal Connector

- ①: Base
- ②: Emitter
- ③: Collector

RT1N140T2



JEITA: SC-70
JEDEC:—

Terminal Connector
①: Base
②: Emitter
③: Collector

JEITA, JEDEC:—
ISAHAYA: T-USM

Terminal Connector
①: Base
②: Emitter
③: Collector

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MAXIMUM RATING (Ta=25°C)

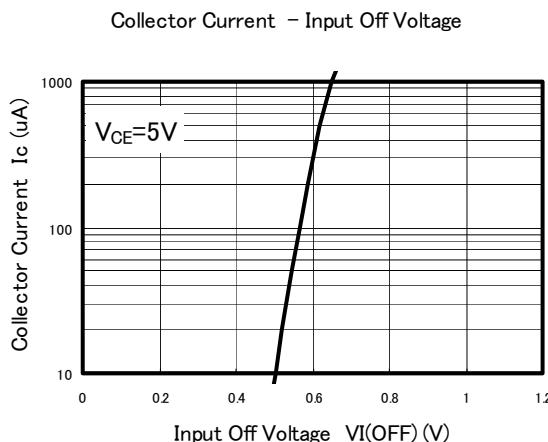
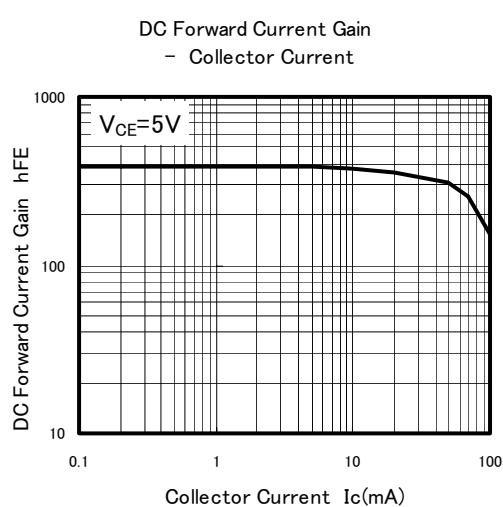
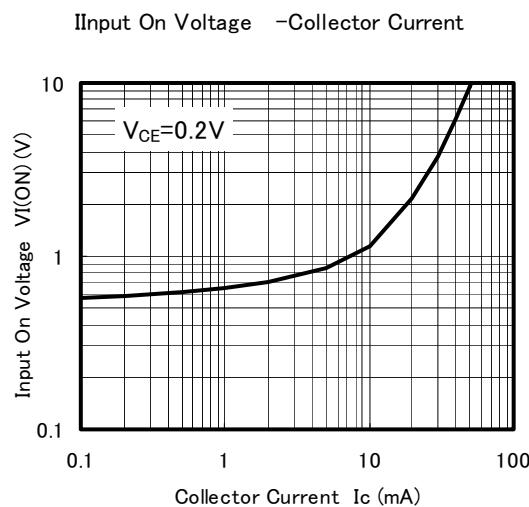
SYMBOL	PARAMETER	RATING					UNIT
		RT1N140T2	RT1N140U	RT1N140M	RT1N140C	RT1N140S	
V _{CBO}	Collector to Base voltage			50			V
V _{EBO}	Emitter to Base voltage			6			V
V _{CEO}	Collector to Emitter voltage			50			V
I _C	Collector current			100			mA
I _{CM}	Peak Collector current			200			mA
P _C	Collector 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 μA, R _{BE} =∞	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		0.1	0.3	V
R ₁	Input resistance		7	10	13	kΩ
f _T	Gain band width product	V _{CE} =6V, I _E =-10mA		200		MHz

TYPICAL CHARACTERISTICS





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