

〈Transistor〉

For Switching Application

Silicon NPN Epitaxial Type

OUTLINE DRAWING

UNIT : mm

RT1N44QC

- Built-in bias resistor ($R1=47k\Omega$, $R2=10k\Omega$).

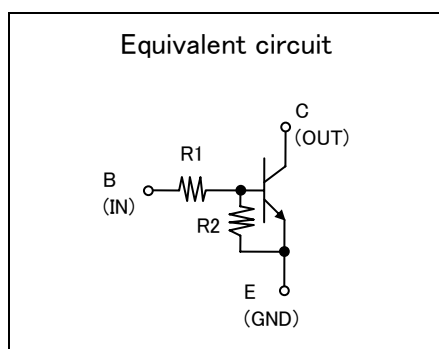
JEITA:SC-59

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

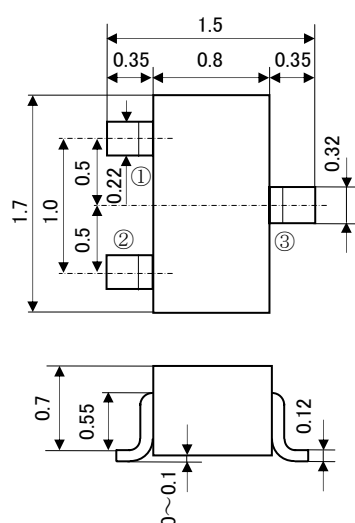
JEDEC: Similar to TO-236

Terminal Connector

①: Base
②: Emitter
③: Collector



RT1N44QM

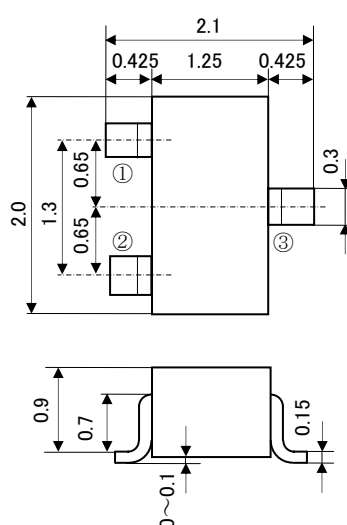


JEITA:SC-75A

JEDEC: —

Terminal Connector

- ①: Base
- ②: Emitter
- ③: Collector

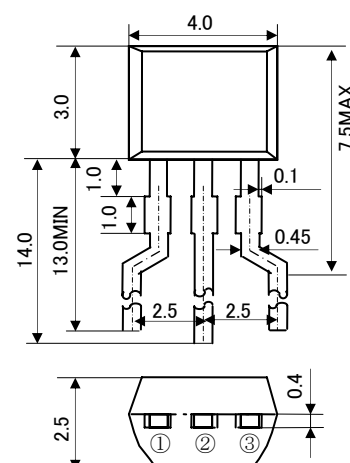


JEITA:SC-70

JEDEC: —

Terminal Connector

①: Base
②: Emitter
③: Collector



JEITA: -

JEDEC: —

Terminal Connector

①: Emitter
②: Collector
③: Base

RT1N44QX SERIES

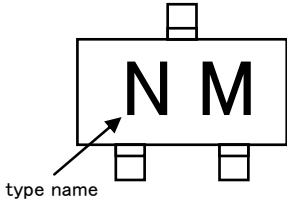
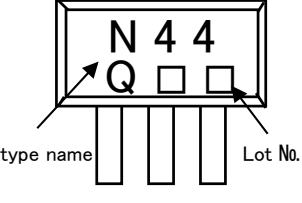
〈Transistor〉

Transistor With Resistor

For Switching Application

Silicon NPN Epitaxial Type

MARKING

RT1N44QC RT1N44QM RT1N44QU	RT1N44QS
	

MAXIMUM RATING (Ta=25°C)

SYMBOL	PARAMETER	RATING				UNIT
		RT1N44QU	RT1N44QM	RT1N44QC	RT1N44QS	
V _{CBO}	Collector to Base voltage	50				V
V _{EBO}	Emitter to Base voltage	15				V
V _{CEO}	Collector to Emitter voltage	50				V
V _{IN}	Input voltage	40				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
Tj	Junction temperature	+150				°C
Tstg	Storage temperature	-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
I_{EBO}	Emitter cut off current	$V_{EB}=5V, I_C=0$	66	88	127	μA
h_{FE}	DC forward current gain	$V_{CE}=5V, I_C=5mA$	33	—	—	—
$V_{CE(sat)}$	C to E saturation voltage	$I_C=10mA, I_B=0.5mA$	—	—	0.3	V
$V_{I(ON)}$	Input on voltage	$V_{CE}=0.2V, I_C=5mA$	—	4.2	8.9	V
$V_{I(OFF)}$	Input off voltage	$V_{CE}=5V, I_C=100\mu A$	2.3	3.1	—	V
R_1	Input resistor	—	33	47	61	k Ω
R_2/R_1	Resistor ratio	—	0.17	0.21	0.26	—
f_T	Gain band width product	$V_{CE}=6V, I_E=-10mA$	—	200	—	MHz

RT1N44QX SERIES

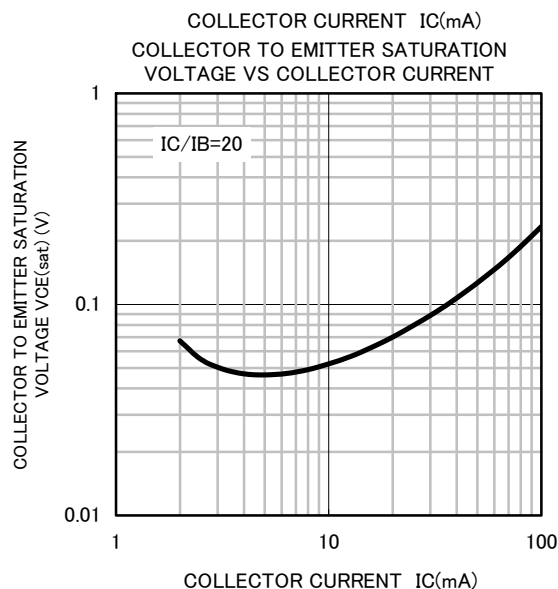
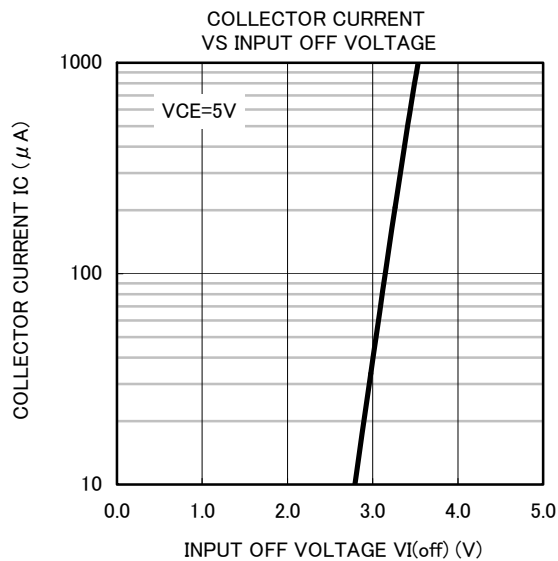
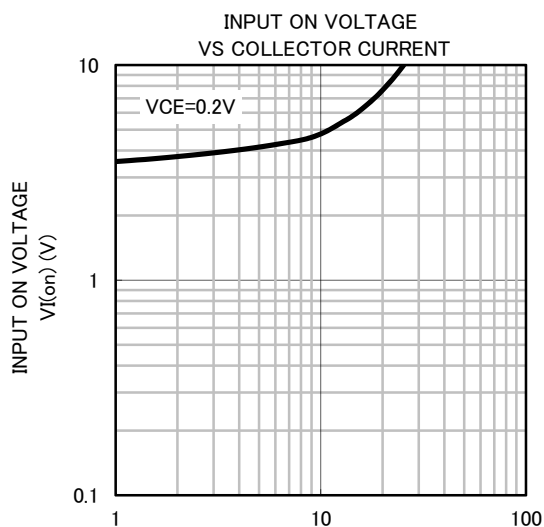
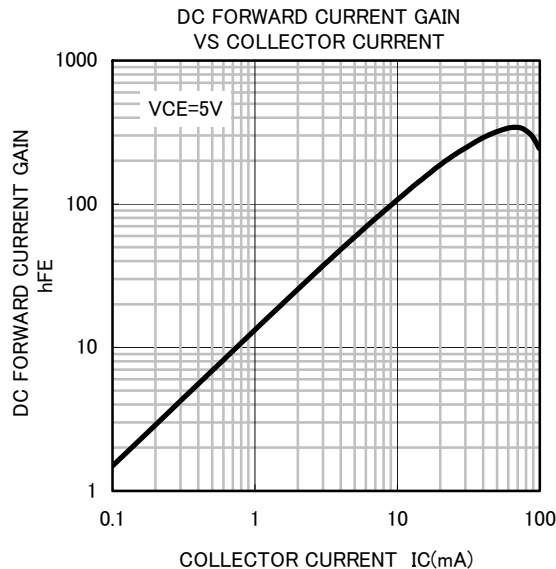
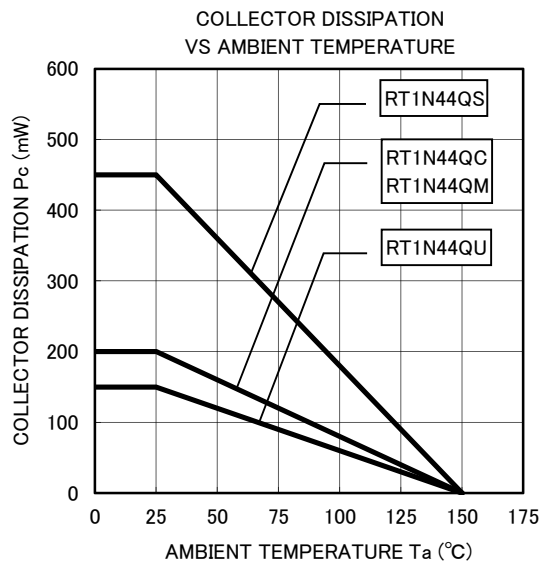
〈Transistor〉

Transistor With Resistor

For Switching Application

Silicon NPN Epitaxial Type

TYPICAL CHARACTERISTICS (Ta=25°C)





Keep safety first in your circuit designs!

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