

# RT1N240X SERIES

Transistor

Transistor With Resistor  
For Switching Application  
Silicon NPN Epitaxial Type

## DESCRIPTION

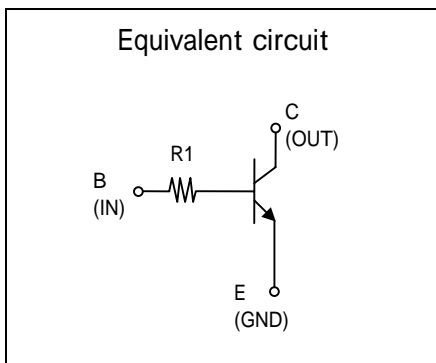
RT1N240X is a one chip transistor with built-in bias resistor, PNP type is RT1P240X.

## FEATURE

- Built-in bias resistor (R1=22k ).

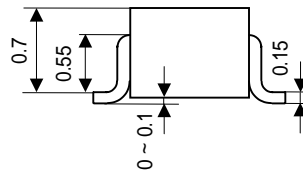
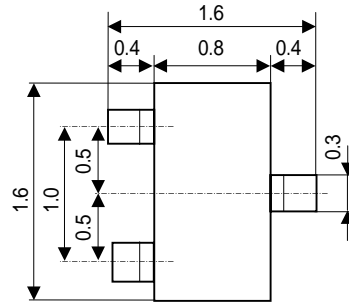
## APPLICATION

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



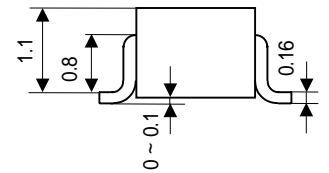
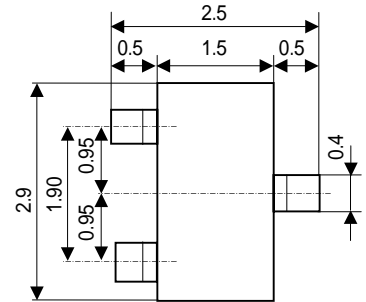
## OUTLINE DRAWING UNIT : mm

RT1N240U



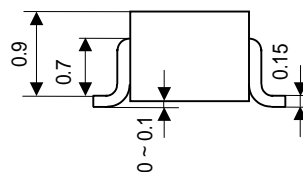
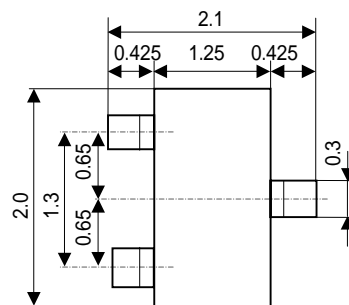
JEITA : -  
JEDEC : -  
Terminal Connector  
: Base  
: Emitter  
: Collector

RT1N240C



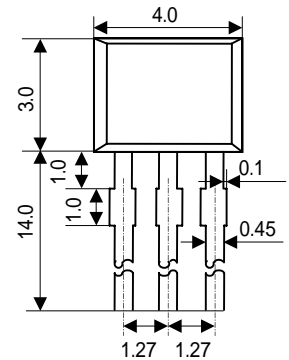
JEITA : SC-59  
JEDEC : Similar to TO-236  
Terminal Connector  
: Base  
: Emitter  
: Collector

RT1N240M



JEITA : SC-70  
JEDEC : -  
Terminal Connector  
: Base  
: Emitter  
: Collector

RT1N240S



JEITA : -  
JEDEC : -  
Terminal Connector  
: Emitter  
: Collector  
: Base

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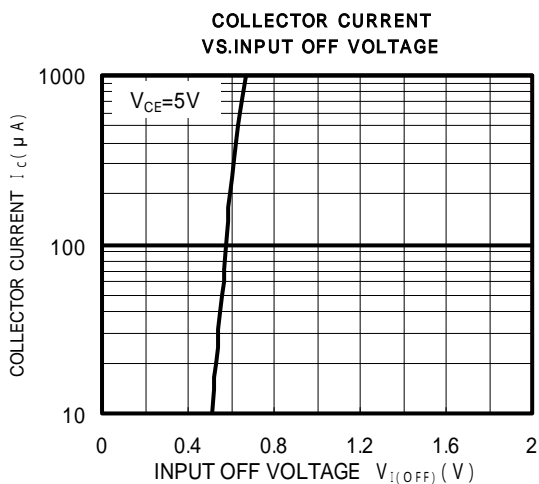
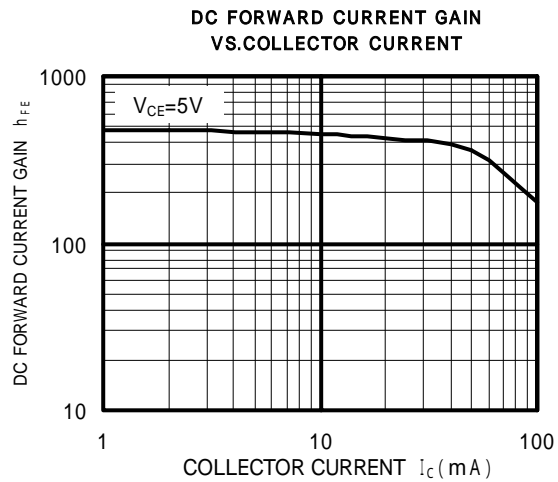
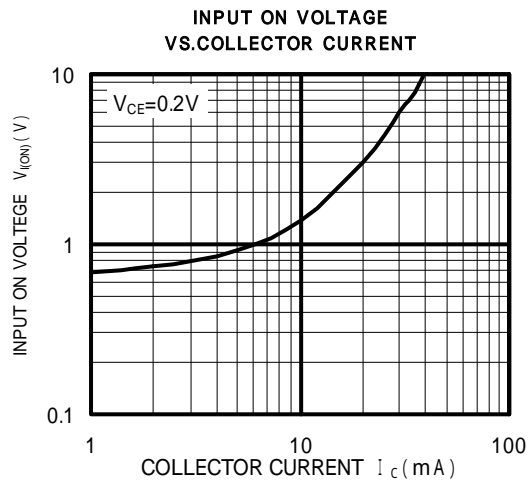
## MAXIMUM RATING (Ta=25 )

SYMBOL	PARAMETER	RATING				UNIT
		RT1N240U	RT1N240M	RT1N240C	RT1N240S	
$V_{CBO}$	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 )	150	200		450	mW
$T_j$	Junction temperature	+150	+150			
$T_{stg}$	Storage temperature	-55 ~ +150		-55 ~ +150		

## ELECTRICAL CHARACTERISTICS (Ta=25 )

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	$\mu A$
$h_{FE}$	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		15	22	29	k
$f_T$	Gain band width product	$V_{CE}=6V, I_E=-10mA$		200		MHz

## TYPICAL CHARACTERISTICS



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