

RT1P431X SERIES

Semiconductor

Transistor

Transistor With Resistor

For Switching Application

Silicon PNP Epitaxial Type

DESCRIPTION

RT1P431X is a one chip transistor with built-in bias resistor,NPN type is RT1N431X.

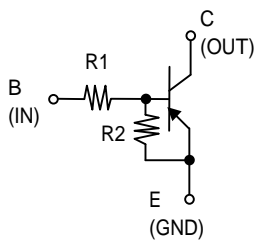
FEATURE

- Built-in bias resistor ($R1=4.7k$, $R2=4.7k$).

APPLICATION

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

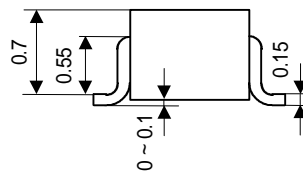
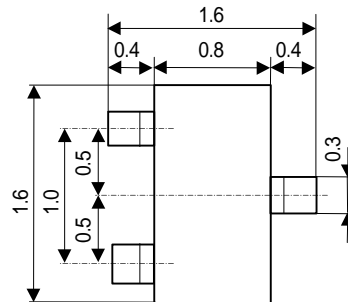
Equivalent circuit



OUTLINE DRAWING

UNIT : mm

RT1P431U

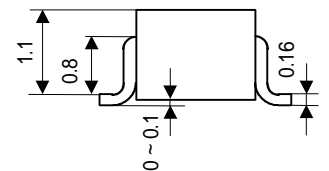
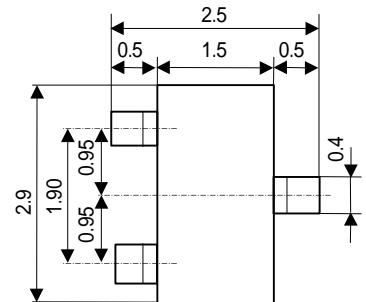


EIAJ : -
JEDEC : -

Terminal Connector

: Base
: Emitter
: Collector

RT1P431C

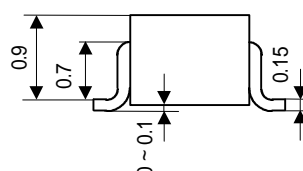
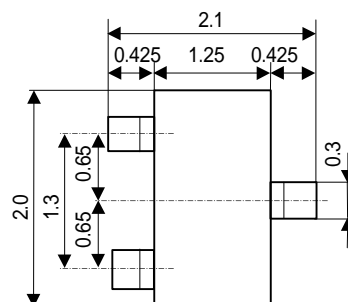


EIAJ : SC-59
JEDEC : Similar to TO-236

Terminal Connector

: Base
: Emitter
: Collector

RT1P431M

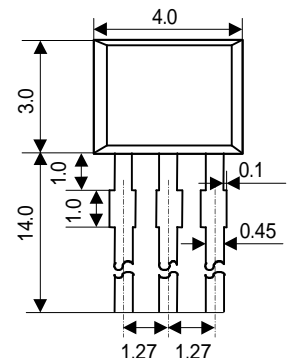


EIAJ : SC-70
JEDEC : -

Terminal Connector

: Base
: Emitter
: Collector

RT1P431S



EIAJ : -
JEDEC : -

Terminal Connector

: Emitter
: Collector
: Base

RT1P431X SERIES

Transistor With Resistor

For Switching Application

Silicon PNP Epitaxial Type

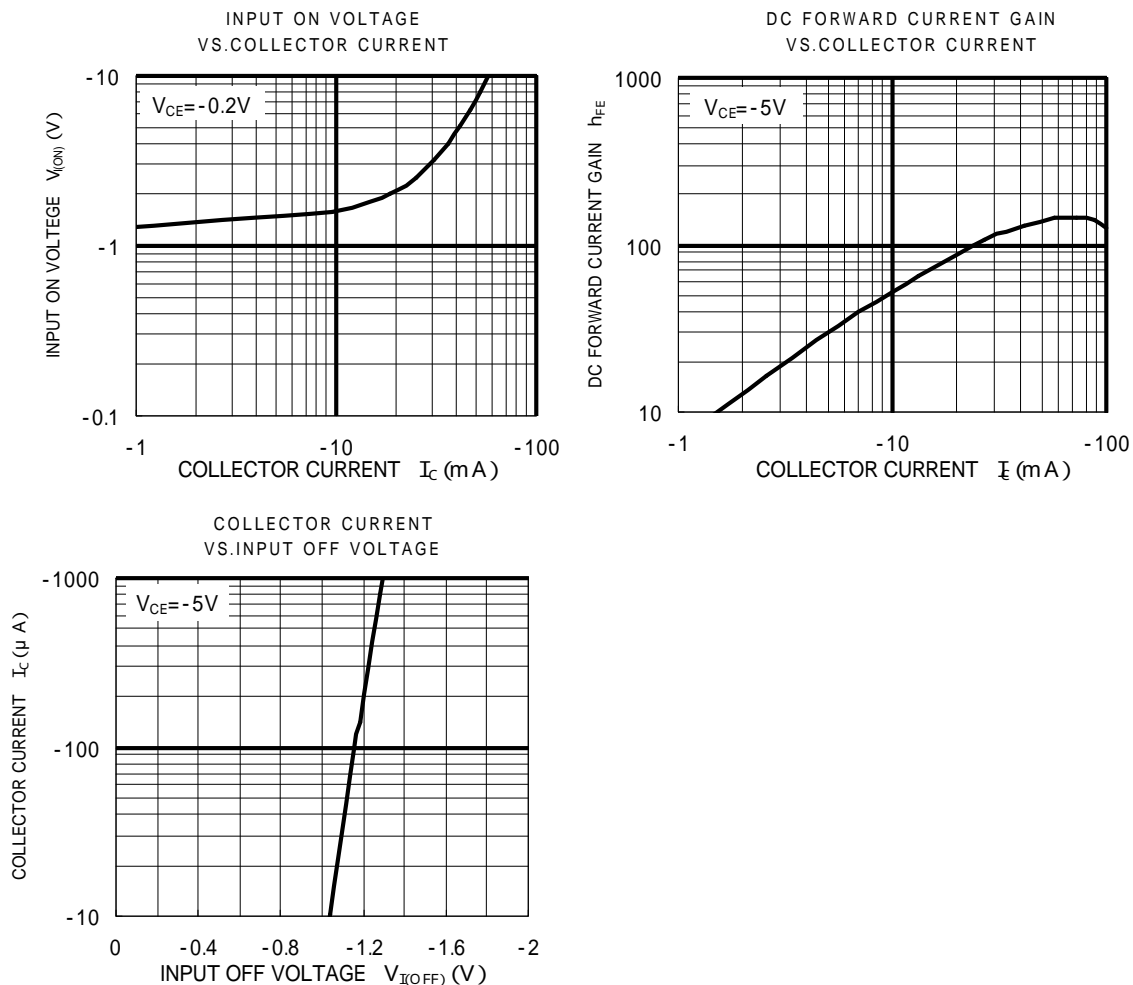
MAXIMUM RATING (Ta=25 °C)

SYMBOL	PARAMETER	RATING				UNIT
		RT1P431U	RT1P431M	RT1P431C	RT1P431S	
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)	150	200		450	mW
T _j	Junction temperature	+150	+150			
T _{stg}	Storage temperature	-55 ~ +150	-55 ~ +150			

ELECTRICAL CHARACTERISTICS (Ta=25 °C)

SYMBOL	PARAMETER	TEST CONDITION	LIMIT			UNIT
			MIN	TYP	MAX	
$V_{(BR)CEO}$	C to E break down voltage	$I_C = -100 \mu A, R_{BE} =$	-50			V
I_{CBO}	Collector cut off current	$V_{CB} = -50V, I_E = 0$			-0.1	μA
h_{FE}	DC forward current gain	$V_{CE} = -5V, I_C = -10mA$	20			-
$V_{CE(sat)}$	C to E saturation voltage	$I_C = -10mA, I_B = -0.5mA$		-0.1	-0.3	V
$V_{I(ON)}$	Input on voltage	$V_{CE} = -0.2V, I_C = -5mA$		-1.4	-2.3	V
$V_{I(OFF)}$	Input off voltage	$V_{CE} = -5V, I_C = -100 \mu A$	-0.8	-1.1		V
R_1	Input resistance		3.3	4.7	6.1	k
R_2 / R_1	Resistance ratio		0.8	1.0	1.2	
f_T	Gain band width product	$V_{CE} = -6V, I_E = 10mA$		150		MHz

TYPICAL CHARACTERISTICS





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