



# RT1P431X SERIES

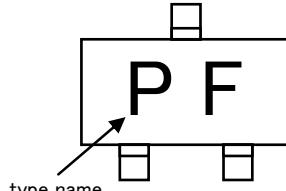
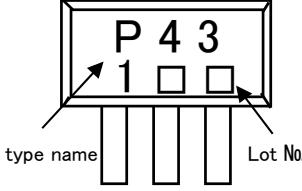
⟨Transistor⟩

Transistor With Resistor

For Switching Application

Silicon PNP Epitaxial Type

## MARKING

RT1P431C RT1P431M RT1P431U	RT1P431S
	

## 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
$V_{IN}$	Input voltage			-30		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
$T_j$	Junction temperature			+150		°C
$T_{stg}$	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	$\mu A$
$I_{EBO}$	Emitter cut off current	$V_{EB} = -5V, I_c = 0$	-399	-532	-771	$\mu A$
$h_{FE}$	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 resistor	—	3.3	4.7	6.1	$k\Omega$
$R_2/R_1$	Resistor ratio	—	0.8	1.0	1.2	—
$f_T$	Gain band width product	$V_{CE} = -6V, I_E = 10mA$	—	150	—	MHz

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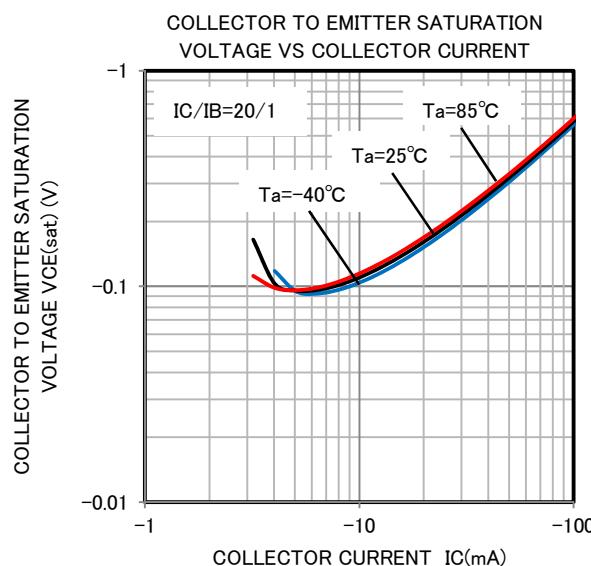
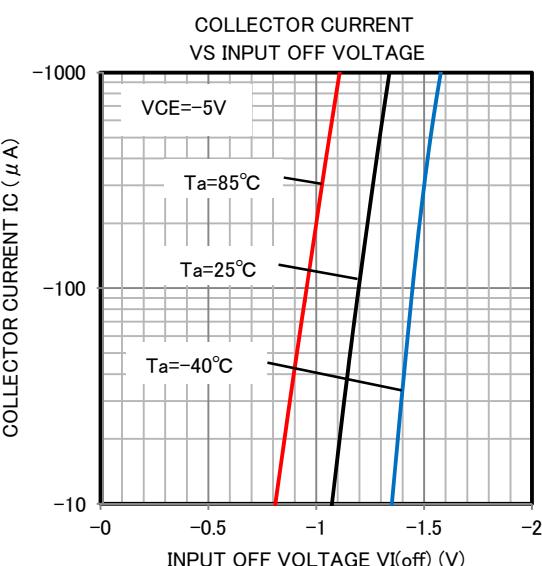
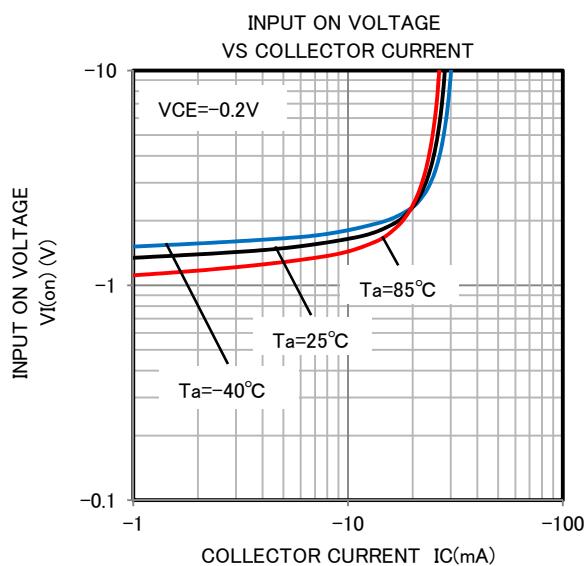
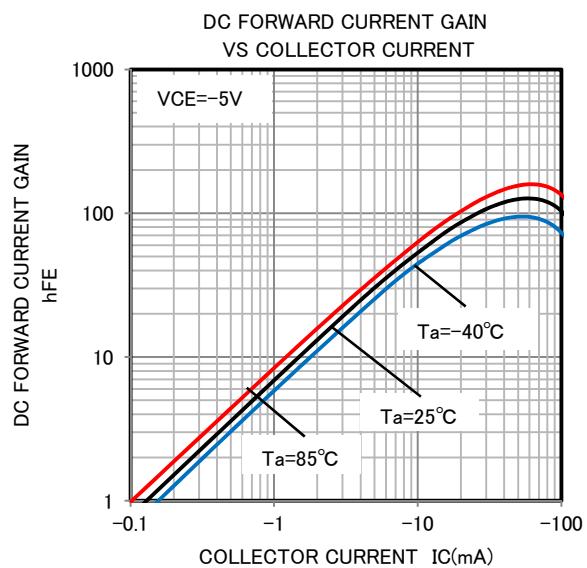
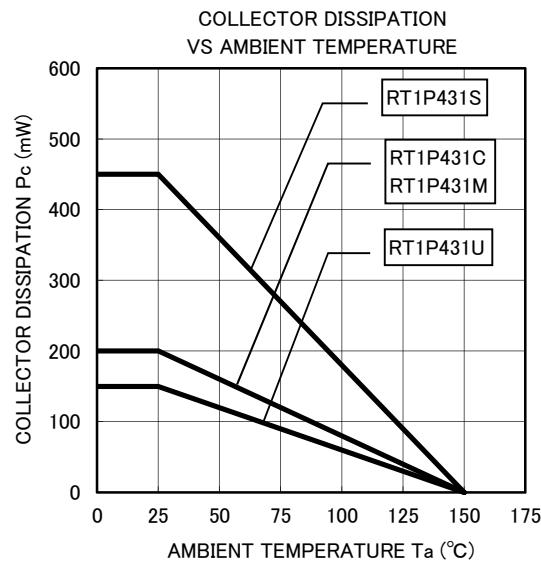
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## TYPICAL CHARACTERISTICS



**Keep safety first in your circuit designs!**

·ISAHAYA Electronics Corporation puts the maximum effort into making semiconductor products better and more reliable, but there is always the possibility that trouble may occur with them. Trouble with semiconductors may lead to personal injury, fire or property damage. Remember to give due consideration to safety when making your circuit designs, with appropriate measures such as (1) placement of substitutive, auxiliary, (2) use of non-farmable material or (3) prevention against any malfunction or mishap.

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