## RT1P44QX SERIES

Transistor

Transistor With Resistor For Switching Application Silicon PNP Epitaxial Type

## **DESCRIPTION**

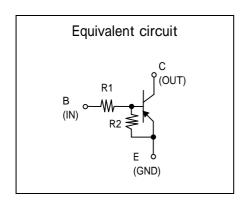
RT1P44QX is a one chip transistor with built-in bias resistor, NPN type is RT1N44QX.

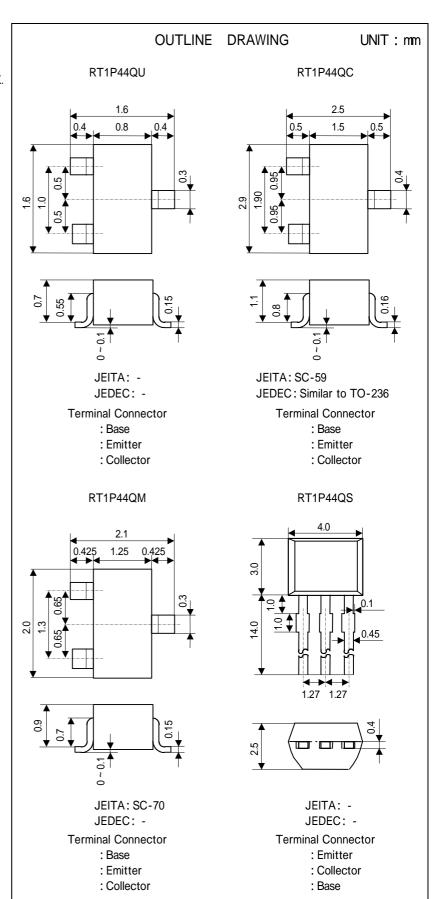
### **FEATURE**

•Built-in bias resistor (R1=47k ,R2=10k ).

### **APPLICATION**

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





# RT1P44QX SERIES

Transistor With Resistor For Switching Application Silicon PNP Epitaxial Type

## MAXIMUM RATING (Ta=25 )

SYMBOL	PARAMETER	RATING				UNIT
		RT1P44QU	RT1P44QM	RT1P44QC	RT1P44QS	UNIT
$V_{CBO}$	Collector to Base voltage	-50				
$V_{EBO}$	Emitter to Base voltage	-15				
$V_{CEO}$	Collector to Emitter voltage	-50				
Ι <sub>c</sub>	Collector current	-100				
I <sub>CM</sub>	Peak Collector current	-200				
$P_{c}$	Collector dissipation(Ta=25 )	150	2	00	450	mW
Tj	Junction temperature	+150	+150			
Tstg	Storage temperature	-55 ~ +150	-55 ~ <b>+</b> 150			

## ELECTRICAL CHARACTERISTICS (Ta=25 )

SYMBOL	PARAMETER	TEST CONDITION	LIMIT			UNIT
			MIN	TYP	MAX	UNIT
$V_{(BR)CEO}$	C to E break down voltage	$I_{C}=-100 \mu A$ , $R_{BE}=$	-50			V
I <sub>CBO</sub>	Collector cut off current	$V_{CB}$ =-50V , $I_{E}$ =0			-0.1	μA
h <sub>FE</sub>	DC forward current gain	$V_{CE}$ =-5V , I $_{C}$ =-5mA	33			-
$V_{CE(sat)}$	C to E saturation voltage	$I_C = -10 \text{mA}$ , $I_B = -0.5 \text{mA}$			-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 resistance		33	47	61	k
$R_2/R_1$	Resistance ratio		0.17	0.21	0.26	
$f_T$	Gain band width product	$V_{CE}=-6V$ , $I_{E}=10mA$		150		MHz

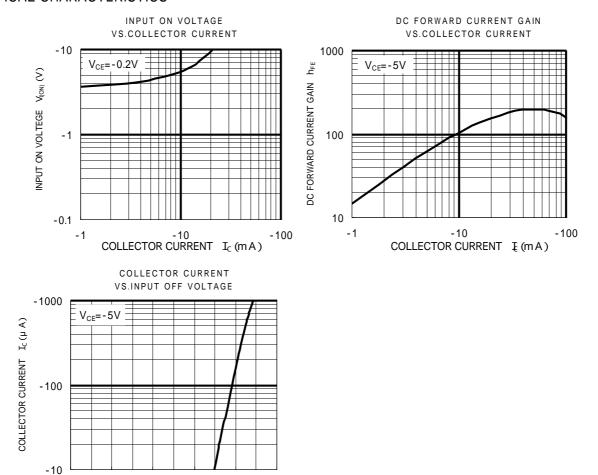
## TYPICAL CHARACTERISTICS

0

-0.8

-1.6

-2.4 INPUT OFF VOLTAGE  $V_{I(OFF)}(V)$ 





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