

**isc Silicon NPN RF Transistor**

**UPA805T**

**DESCRIPTION**

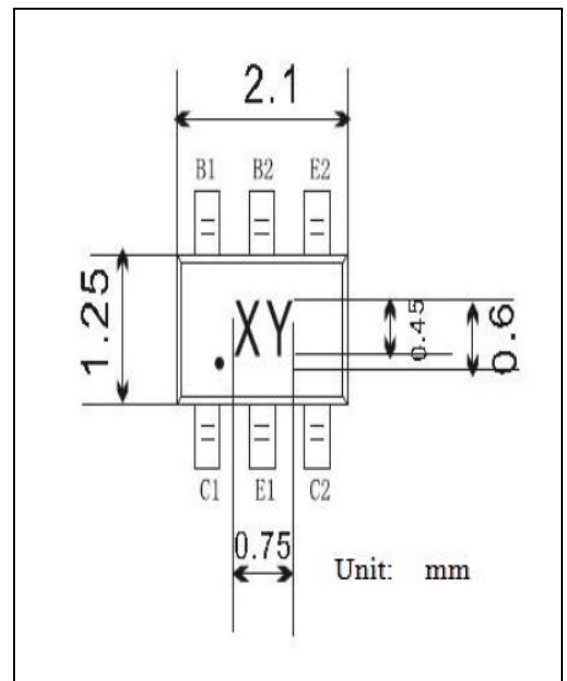
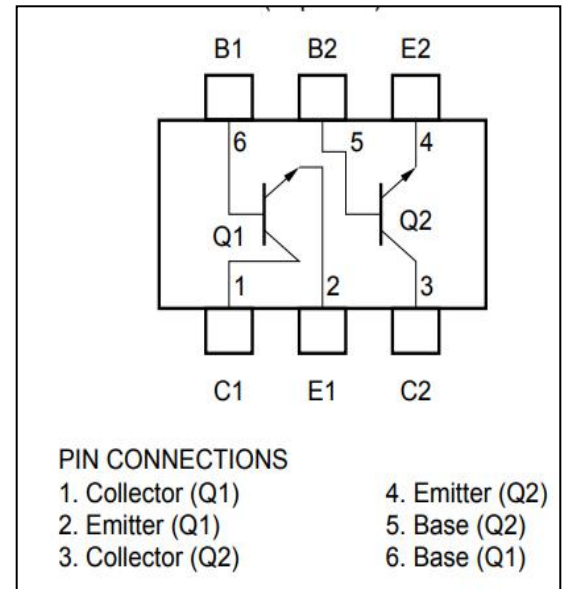
- With SOT-363 packaging
- Low voltage use
- Ultra super mini mold package
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

**APPLICATIONS**

- Designed for use in low noise and small signal amplifiers from VHF band to UHF band

**ABSOLUTE MAXIMUM RATINGS(T<sub>a</sub>=25°C)**

SYMBOL	PARAMETER	VALUE	UNIT
V <sub>CBO</sub>	Collector-Base Voltage	9	V
V <sub>CEO</sub>	Collector-Emitter Voltage	6	V
V <sub>EBO</sub>	Emitter-Base Voltage	2	V
I <sub>c</sub>	Collector Current-Continuous	10	mA
P <sub>c</sub>	Collector Power Dissipation @T <sub>c</sub> =25°C	120	mW
T <sub>j</sub>	Max.Junction Temperature	150	°C
T <sub>stg</sub>	Storage Temperature Range	-60~150	°C



## isc Silicon NPN RF Transistor

## UPA805T

## ELECTRICAL CHARACTERISTICS

T<sub>c</sub>=25°C unless otherwise specified, Pulse Measurement PW ≤ 350 μs, Duty Cycle ≤ 2 %

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
I <sub>CB0</sub>	Collector Cutoff Current	V <sub>CB</sub> = 5V; I <sub>E</sub> = 0			0.1	μ A
I <sub>EB0</sub>	Emitter Cutoff Current	V <sub>EB</sub> = 1V; I <sub>C</sub> = 0			0.1	μ A
h <sub>FE</sub>	DC Current Gain	I <sub>C</sub> = 5mA; V <sub>CE</sub> = 3V	90		150	
f <sub>T</sub>	Current-Gain—Bandwidth Product	I <sub>C</sub> = 7mA; V <sub>CE</sub> = 3V; f=2.0GHz		12		GHz
C <sub>re</sub>	Feed-Back Capacitance	I <sub>E</sub> = 0; V <sub>CB</sub> = 3V; f= 1.0MHz		0.4	0.5	pF
S <sub>21e</sub>   <sup>2</sup>	Insertion Power Gain	I <sub>C</sub> = 5mA; V <sub>CE</sub> = 3V; f= 2.0GHz	7	9		dB
NF	Noise Figure	I <sub>C</sub> = 3mA; V <sub>CE</sub> = 3V; f= 1.0GHz		2	4.0	dB

**NOTICE:**

ISC reserves the rights to make changes of the content herein the datasheet at any time without notification. The information contained herein is presented only as a guide for the applications of our products.

ISC products are intended for usage in general electronic equipment. The products are not designed for use in equipment which require specialized quality and/or reliability, or in equipment which could have applications in hazardous environments, aerospace industry, or medical field. Please contact us if you intend our products to be used in these special applications.

ISC makes no warranty or guarantee regarding the suitability of its products for any particular purpose, nor does ISC assume any liability arising from the application or use of any products, and specifically disclaims any and all liability, including without limitation special, consequential or incidental damages.