

**isc Silicon NPN RF Transistor**

**UPA805T**

**DESCRIPTION**

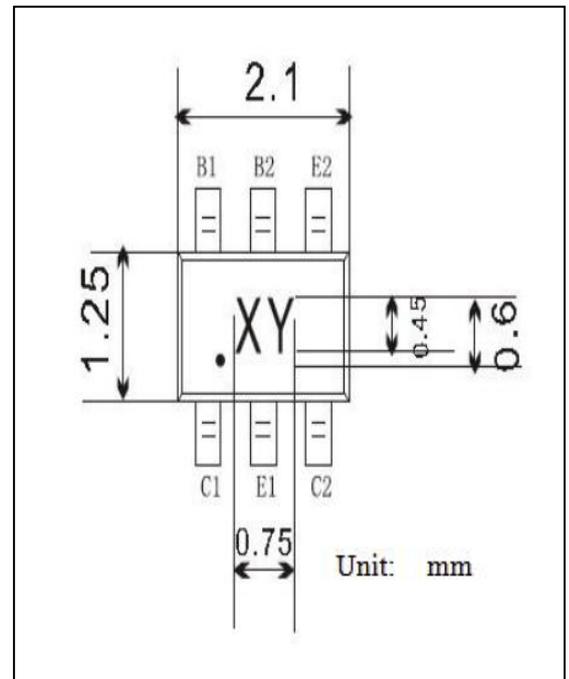
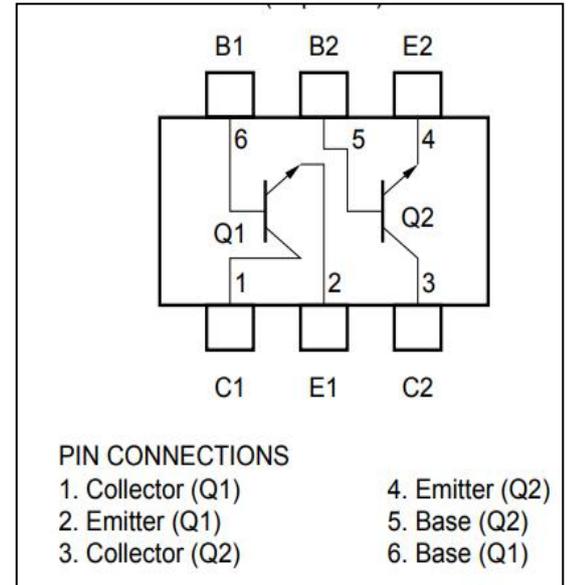
- With SOT-363 packaging
- Low voltage use
- Ultra super mini mold package
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

**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



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## 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

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