#### UTC 4124 NPN TRIPLE DIFFUSED SILICON TRANSISTOR

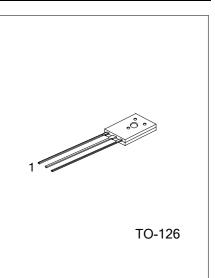
### **HIGH FREQUENCY SWITCHING** TRANSISTORS FOR BALLASTERS

#### DESCRIPTION

UTC 4124 is designed for specially used for electronic ballasters in 110VAC environment.

#### **FEATURES**

- \* Triple diffused technology.
- \* High switching speed



1: BASE 2: COLLECTOR 3: EMITTER \*Pb-free plating product number:4124L

#### **ABSOLUTE MAXIMUM RATINGS**

(Tc = 25°C)

PARAMETER	SYMBOL	RATINGS	UNIT
Collector-Base Voltage	V <sub>CBO</sub>	400	V
Collector-Emitter Voltage	V <sub>CEO</sub>	200	V
Collector-Emitter Voltage	V <sub>EBO</sub>	7	V
Peak Collector Current	Ι <sub>C</sub>	1.5	А
Peak Collector Consume Dissipation	Pc	20	W
Peak Junction Temperature	TJ	150	°C
Storage Temperature	T <sub>STG</sub>	-40 ~ +150	°C

#### **ELECTRICAL CHARACTERISTICS**

(Ta = 25°C)

PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Collector-Emitter Sustaining Voltage	V <sub>CEO (SUS)</sub>	I <sub>C</sub> =10mA, I <sub>B</sub> =0	200			V
Collector-Base Breakdown Voltage	V (BR) CBO	I <sub>C</sub> =1mA, I <sub>B</sub> =0	400			V
Emitter-Base Breakdown Voltage	V (BR) EBO	I <sub>E</sub> =1mA, I <sub>C</sub> =0	7			V
Collector-Base Cutoff Current	I <sub>CBO</sub>	V <sub>CB</sub> =400V, I <sub>E</sub> =0			100	μA
Collector-Emitter Cutoff Current	I <sub>CEO</sub>	V <sub>CE</sub> =200V, I <sub>B</sub> =0			100	μA
Emitter-Base Cutoff Current	I <sub>EBO</sub>	V <sub>EB</sub> =7V, Ic=0			100	μA
DC Current Gain	h <sub>FE (1)</sub>	V <sub>CE</sub> =10V, Ic=0.2A	10		60	
	h <sub>FE (2)</sub>	V <sub>CE</sub> =5V, Ic=1.5A	5		40	
Collector-Emitter Saturation Voltage	VCE (cat)	I <sub>C</sub> =0.4A, I <sub>B</sub> =0.1A	~		0.5	V
		I <sub>C</sub> =1.5A, I <sub>B</sub> =0.5A	2	7	2	V
Base-Emitter Saturation Voltage	V <sub>BE (sat)</sub>	I <sub>C</sub> =0.8A, I <sub>B</sub> =0.2A	12	3	1.2	V
Fall Time	tf	$I_{C}=1A$ , $I_{B1}=-I_{B2}=0.2A$			0.7	μs
Storage Time	ts	$I_{C}=1A$ , $I_{B1}=-I_{B2}=0.2A$	.O.		4	μs
Cut-off Frequency	f <sub>T</sub>	V <sub>CE</sub> =10V, Ic=0.1A	4			MHz

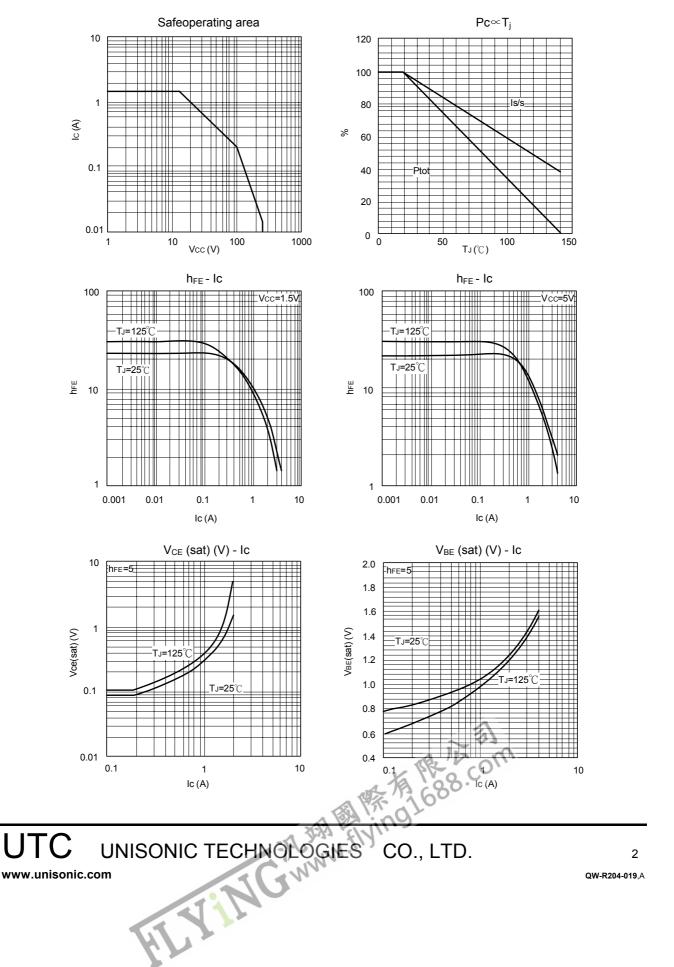
# UNISONIC TECHNOLOGIES CO., LTD. UTC

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www.unisonic.com

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#### **CHARACTERISTICS CURVES**



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