

UNISONIC TECHNOLOGIES CO., LTD

# TIP127

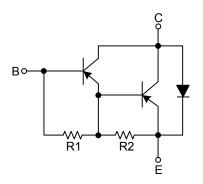
### PNP SILICON TRANSISTOR

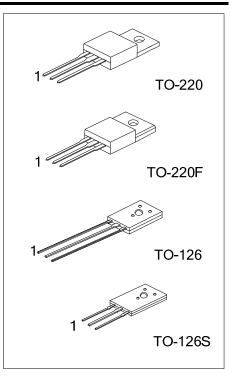
## **PNP EPITAXIAL TRANSISTOR**

#### DESCRIPTION

The UTC **TIP127** is a PNP epitaxial transistor, designed for use in general purpose amplifier low-speed switching applications.

**EQUIVALENT TEST** ( $R_1 \approx 8k\Omega$ ,  $R_2 \approx 0.12k\Omega$ )

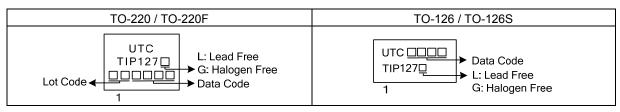




#### ORDERING INFORMATION

Ordering Number		Deekers	Pin Assignment			Decking	
Lead Free	Halogen Free	Package	1	2	3	Packing	
TIP127L-TA3-T	TIP127G-TA3-T	TO-220	В	С	Е	Tube	
TIP127L-TF3-T	TIP127G-TF3-T	TO-220F	В	С	Е	Tube	
TIP127L-T60-K	TIP127G-T60-K	TO-126	Е	С	В	Bulk	
TIP127L-T6S-K	TIP127G-T6S-K	TO-126S	E	С	В	Bulk	
Note: Pin assignment: E: Emitter B: Base C: Collector							
TIP127L-TA3-T (1) K: Bulk, T: Tube   (1) Packing Type (2) TA3: TO-220, TF3: TO-220F, T6   (2) Package Type T6S: TO-126S   (3) Green Package (3) L: Lead Free, G: Halogen Free a							

#### MARKING



#### ■ **ABSOLUTE MAXIMUM RATING** (T<sub>A</sub>= 25°C, unless otherwise specified)

PARAMETER		SYMBOL	RATINGS	UNIT
Collector to Base Voltage		V <sub>CBO</sub>	-100	V
Collector to Emitter Voltage		V <sub>CEO</sub>	-100	V
Emitter to Base Voltage		V <sub>EBO</sub>	-5	V
	DC	Ιc	-5	А
Collector Current	Pulse	I <sub>CP</sub>	-5 -8 65	A
Power Dissipation	TO-220		65	W
	TO-220F	PD	34	W
	TO-126/TO-126S		36	W
Junction Temperature		TJ	+150	°C
Storage Temperature		T <sub>STG</sub>	-55 ~ +150	°C

Note: Absolute maximum ratings are the values beyond which the device will be damaged permanently. Absolute maximum ratings are only stress ratings and it is not implied for functional device operation.

#### ■ ELECTRICAL CHARACTERISTICS (T<sub>A</sub>=25°C, unless otherwise specified)

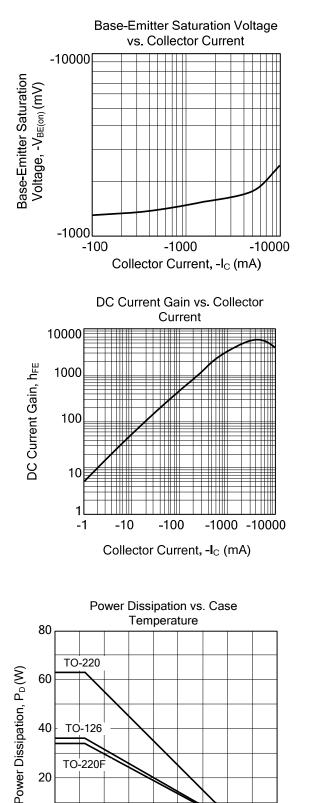
PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Collector-Emitter Breakdown Voltage	BV <sub>CEO</sub>	I <sub>C</sub> =-10mA	-100			V
Collector Cut-Off Current	I <sub>CBO</sub>	V <sub>CB</sub> =-100V			-200	uA
Collector-Cut-Off Current	I <sub>CEO</sub>	V <sub>CE</sub> =-50V			-500	uA
Emitter Cut-Off Current	I <sub>EBO</sub>	V <sub>EB</sub> =-5V			-2	mA
Collector-Emitter Saturation Voltage	V <sub>CE(SAT)1</sub>	I <sub>C</sub> =-3A, I <sub>B</sub> =-12mA			-2	V
Collector-Emitter Saturation Voltage	V <sub>CE(SAT)2</sub>	I <sub>C</sub> =-5Α, I <sub>B</sub> =-20mΑ			-4	V
Base-Emitter Saturation Voltage	V <sub>BE(ON)</sub>	V <sub>CE</sub> =-3V, I <sub>C</sub> =-3A			-2.5	V
DC Current Coin	h <sub>FE</sub>	V <sub>CE</sub> =-3V , I <sub>C</sub> =-500mA	1000			
DC Current Gain		V <sub>CE</sub> =-3V , I <sub>C</sub> =-3A	1000			

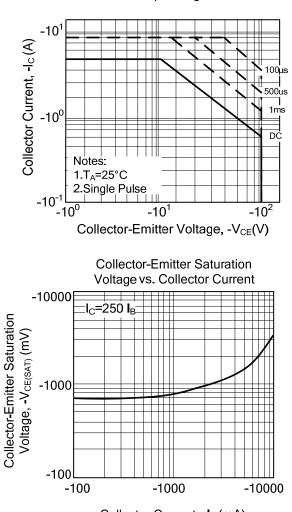


Safe Operating Area

# **TIP127**

## **TYPICAL CHARACTERISTICS**





Collector Current, -I<sub>C</sub>(mA)



Case Temperature, T<sub>A</sub> (°C)

80 100 120 140 160

20

0

40 60

20 0

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