



TIP107

PNP SILICON TRANSISTOR

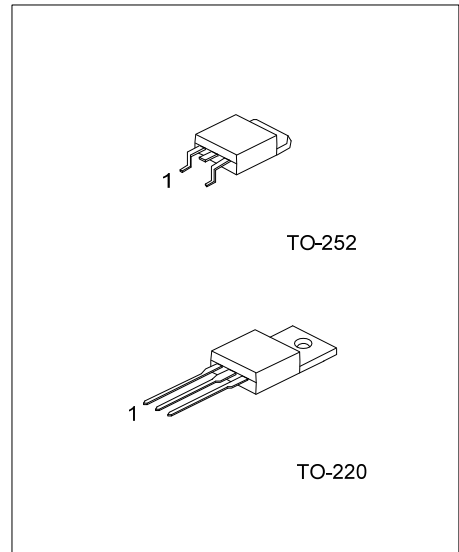
PNP EPITAXIAL TRANSISTOR

DESCRIPTION

The UTC **TIP107** is designed for using in general purpose amplifier and switching applications.

FEATURES

- * Low $V_{CE(SAT)}$
- * High Current Gain
- * Complementary to TIP102



Lead-free: TIP107L
 Halogen-free: TIP107G

ORDERING INFORMATION

Ordering Number			Package	Pin Assignment			Packing
Normal	Lead Free	Halogen Free		1	2	3	
TIP107-TA3-T	TIP107L-TA3-T	TIP107G-TA3-T	TO-220	B	C	E	Tube
TIP107-TN3-R	TIP107L-TN3-R	TIP107G-TN3-R	TO-252	B	C	E	Tape Reel

<p>TIP107L-TA3-T</p> <p>(1) Packing Type (2) Package Type (3) Lead Plating</p>	<p>(1) R: Tape Reel, T: Tube (2) TA3: TO-220, TN3: TO-252 (3) G: Halogen Free, L: Lead Free, Blank: Pb/Sn</p>
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■ ABSOLUTE MAXIMUM RATING ($T_C=25^\circ\text{C}$)

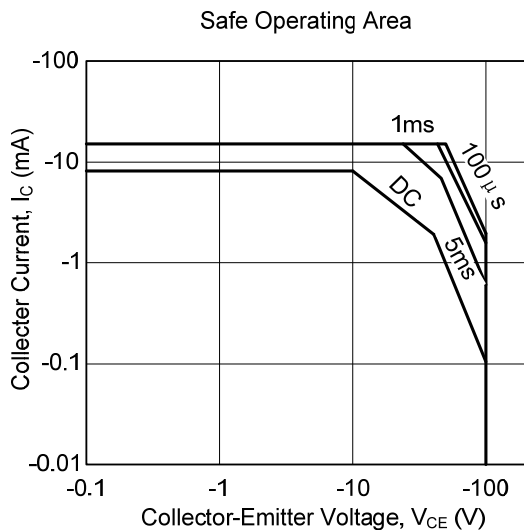
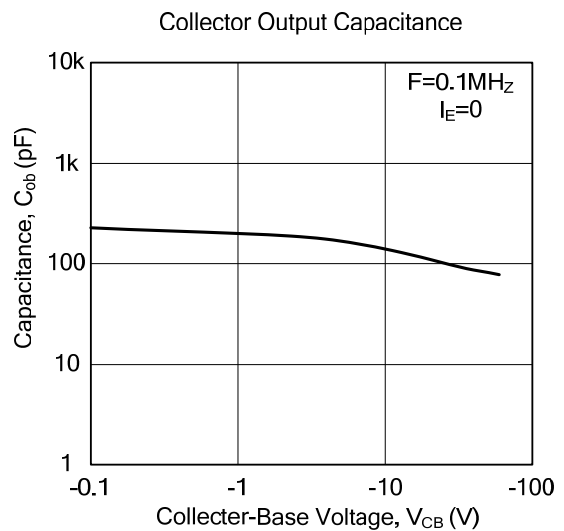
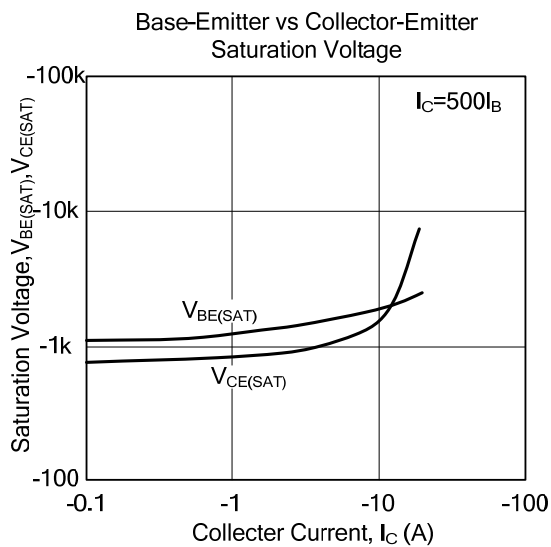
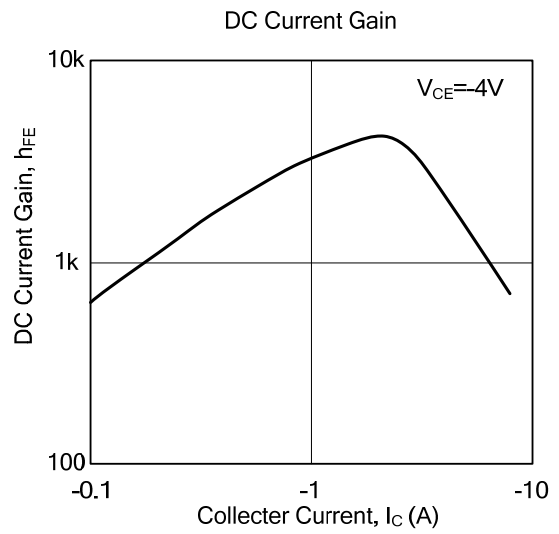
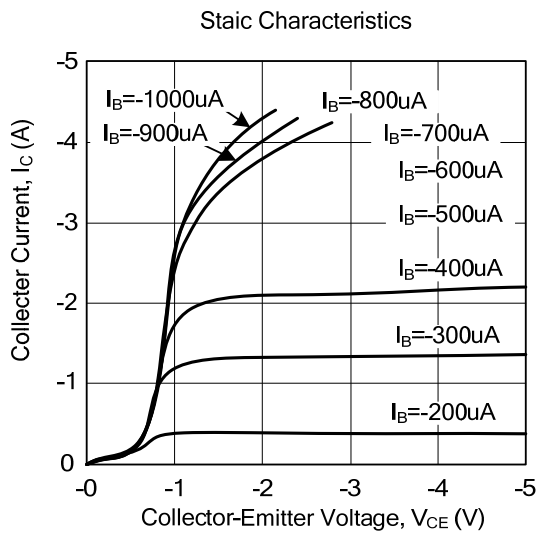
PARAMETER	SYMBOL	RATINGS	UNIT	
Collector-Base Voltage	V_{CBO}	-100	V	
Collector-Emitter Voltage	V_{CES}	-100	V	
Emitter-Base Voltage	V_{EBO}	-5	V	
Collector Current	DC	I_C	-8	A
	Pulse	I_{CP}	-15	A
Base Current	DC	I_B	-1	A
Collector Power Dissipation	P_C	80	W	
Junction Temperature	T_J	150	$^\circ\text{C}$	
Storage Temperature	T_{STG}	-65~+150	$^\circ\text{C}$	

Note Absolute maximum ratings are those values beyond which the device could be permanently damaged. Absolute maximum ratings are stress ratings only and functional device operation is not implied.

■ ELECTRICAL CHARACTERISTICS ($T_C=25^\circ\text{C}$, unless otherwise specified)

PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Collector-Emitter Sustaining Voltage	$V_{CEO(SUS)}$	$I_C=-30\text{mA}$, $I_B=0\text{A}$	-100			V
Collector-Base Cut-Off Current	I_{CBO}	$V_{CB}=-100\text{V}$, $I_E=0\text{A}$			-50	μA
Collector-Emitter Cut-Off Current	I_{CEO}	$V_{CE}=-50\text{V}$, $I_B=0\text{A}$			50	μA
Emitter-Base Cut-Off Current	I_{EBO}	$V_{EB}=-5\text{V}$, $I_C=0\text{A}$			-2	mA
ON CHARACTERISTICS						
DC Current Gain	h_{FE1}	$V_{CE}=-4\text{V}$, $I_C=-3\text{A}$	1000		20000	
	h_{FE2}	$V_{CE}=-4\text{V}$, $I_C=-8\text{A}$	200			
Collector-Emitter Saturation Voltage	$V_{CE(SAT)}$	$I_C=-3\text{A}$, $I_B=-6\text{mA}$			-2	V
		$I_C=-8\text{A}$, $I_B=-80\text{mA}$			-2.5	V
Base-Emitter ON Voltage	$V_{BE(ON)}$	$V_{CE}=-4\text{V}$, $I_C=-8\text{A}$			-2.8	V
SMALL-SIGNAL CHARACTERISTICS						
Output Capacitance	C_{ob}	$V_{CB}=-10\text{V}$, $I_E=0\text{A}$, $f=0.1\text{MHZ}$			300	pF

■ TYPICAL CHARACTERISTICS



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