



TIP107

PNP SILICON TRANSISTOR

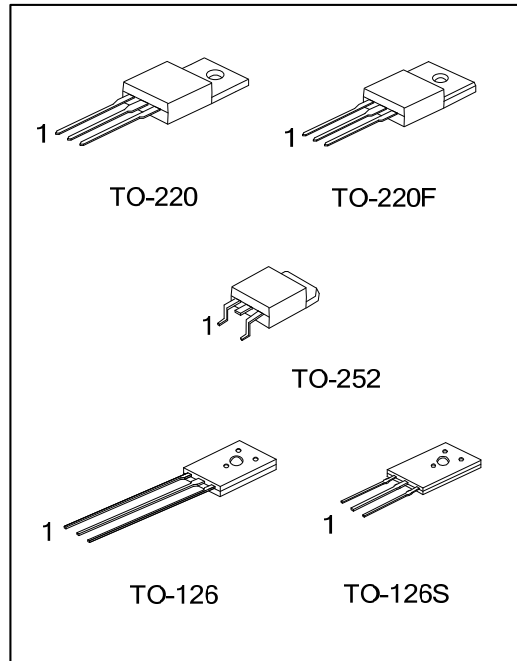
PNP EPITAXIAL TRANSISTOR

■ 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



■ ORDERING INFORMATION

Ordering Number		Package	Pin Assignment			Packing
Lead Free	Halogen Free		1	2	3	
TIP107L-TA3-T	TIP107G-TA3-T	TO-220	B	C	E	Tube
TIP107L-TF3-T	TIP107G-TF3-T	TO-220F	B	C	E	Tube
TIP107L-TN3-R	TIP107G-TN3-R	TO-252	B	C	E	Tape Reel
TIP107L-T60-K	TIP107G-T60-K	TO-126	E	C	B	Bulk
TIP107L-T6S-K	TIP107G-T6S-K	TO-126S	E	C	B	Bulk

Note: Pin Assignment: C: Collector B: Base E: Emitter

<p>TIP107L-TA3-T</p>	<p>(1) R: Tape Reel, T: Tube, K: Bulk (2) TA3: TO-220, TF3: TO-220F, TN3: TO-252 T60: TO-126, T6S: TO-126S (3) L: Lead Free, G: Halogen Free and Lead Free</p>
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■ MARKING

TO-220 / TO-220F / TO-252	TO-126 / TO-126S

■ ABSOLUTE MAXIMUM RATING ($T_C=25^\circ\text{C}$, unless otherwise specified)

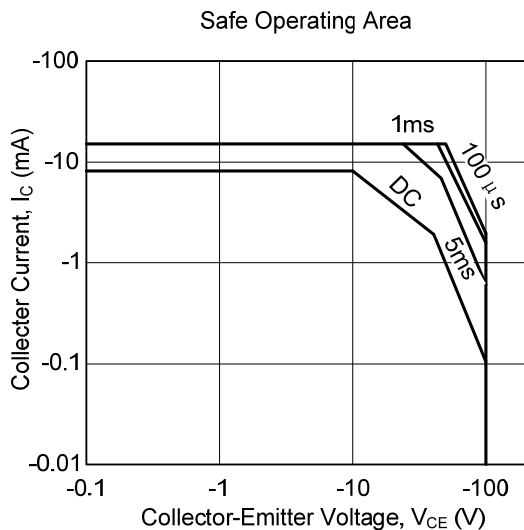
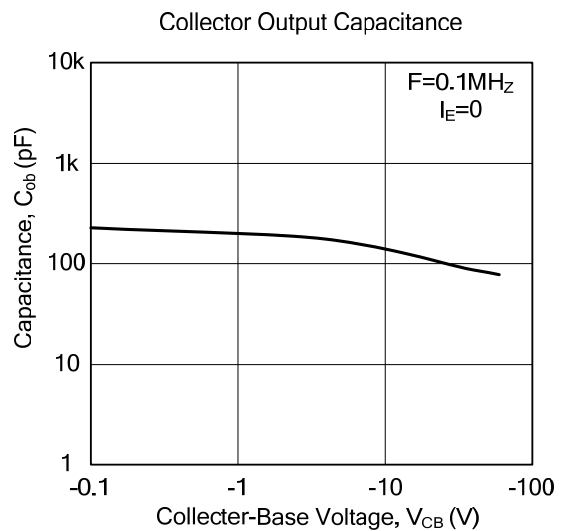
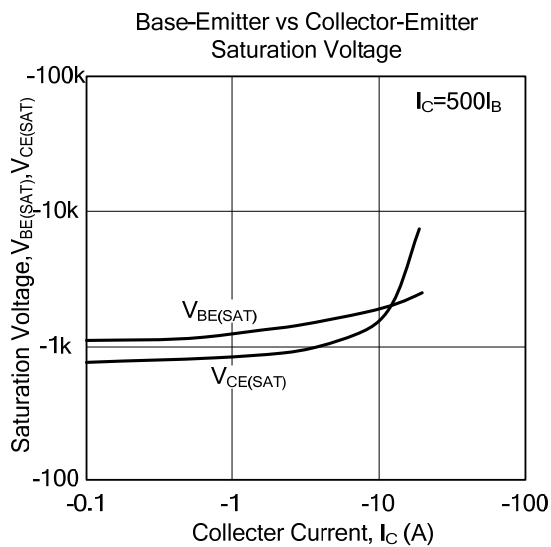
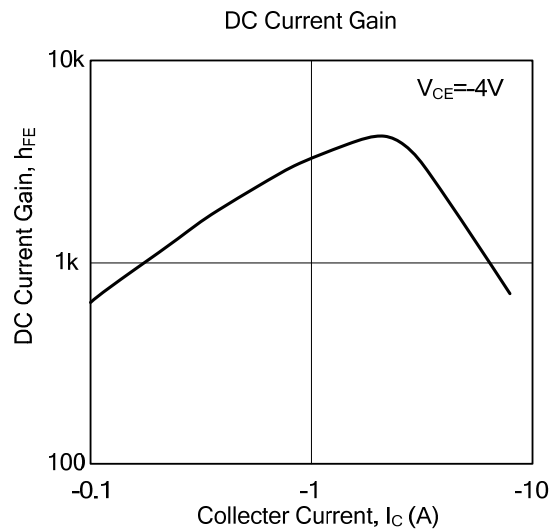
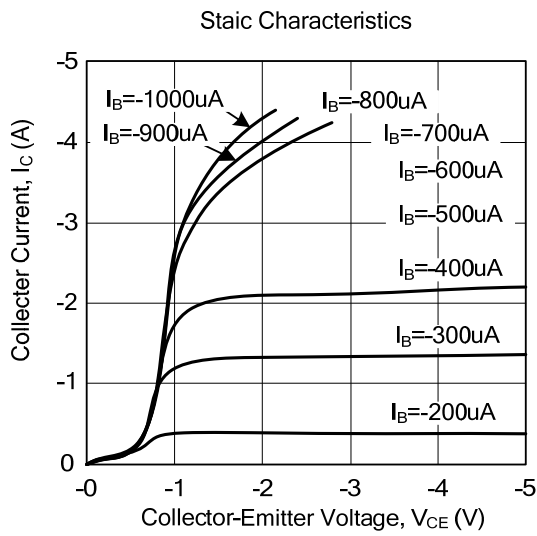
PARAMETER		SYMBOL	RATINGS	UNIT
Collector-Base Voltage		V_{CBO}	-100	V
Collector-Emitter Voltage		V_{CES}	-100	V
Emitter-Base Voltage		V_{EBO}	-5	V
Collector Current	DC	I_C	-8	A
	Pulse	I_{CP}	-15	A
Base Current	DC	I_B	-1	A
Collector Power Dissipation	TO-220/TO-220F	P_C	80	W
	TO-252		41	W
	TO-126/TO-126S		10	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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