



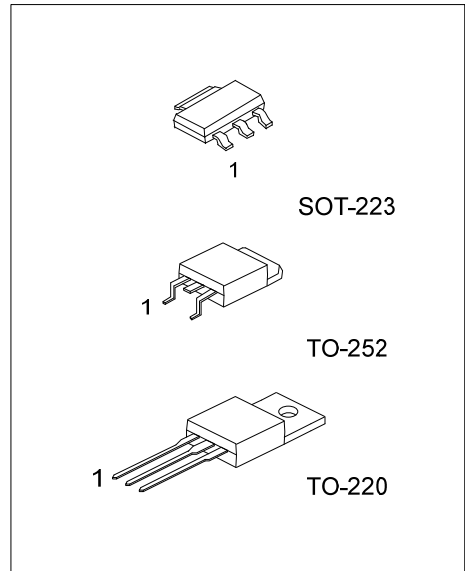
HJ44H11

NPN SILICON TRANSISTOR

NPN EPITAXIAL PLANAR TRANSISTOR

■ DESCRIPTION

The UTC **HJ44H11** is designed for such applications as: series, shunt and switching regulators; output and driver stages of amplifiers operating at frequencies from DC to greater than 1MHz; low and high frequency inverters/converters; and many others.



■ ORDERING INFORMATION

Ordering Number		Package	Pin Assignment			Packing
Lead Free	Halogen Free		1	2	3	
HJ44H11L-AA3-R	HJ44H11G-AA3-R	SOT-223	B	C	E	Tape Reel
HJ44H11L-TA3-T	HJ44H11G-TA3-T	TO-220	B	C	E	Tube
HJ44H11L-TN3-R	HJ44H11G-TN3-R	TO-252	B	C	E	Tape Reel
HJ44H11L-TN3-T	HJ44H11G-TN3-T	TO-252	B	C	E	Tube

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

<p>HJ44H11G-AA3-R</p> <p>(1) Packing Type (2) Package Type (3) Green Package</p>	<p>(1) R: Tape Reel, T: Tube (2) AA3: SOT-223, TA3: TO-220, TN3: TO-252 (3) G: Halogen Free and Lead Free, L: Lead Free</p>
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■ MARKING

SOT-223	TO-220 / TO-252
<p>HJ44H11□ □□□□</p> <p>L: Lead Free G: Halogen Free Date Code</p> <p>1</p>	<p>UTC HJ44H11□ □□□□□□</p> <p>Lot Code ← Date Code</p> <p>L: Lead Free G: Halogen Free Date Code</p> <p>1</p>

■ ABSOLUTE MAXIMUM RATINGS ($T_A=25^{\circ}\text{C}$)

PARAMETER		SYMBOL	RATINGS	UNIT
Collector- Emitter Voltage		V_{CEO}	80	V
Collector-Emitter Voltage		V_{CES}	80	V
Emitter-Base Voltage		V_{EBO}	5	V
Collector Current		I_C	8	A
Base Current		I_B	5	A
Power Dissipation ($T_C=25^{\circ}\text{C}$)	SOT-223	P_D	5	W
	TO-220		65	
	TO-252		20	
Junction Temperature		T_J	+150	$^{\circ}\text{C}$
Storage Temperature		T_{STG}	-55~+150	$^{\circ}\text{C}$

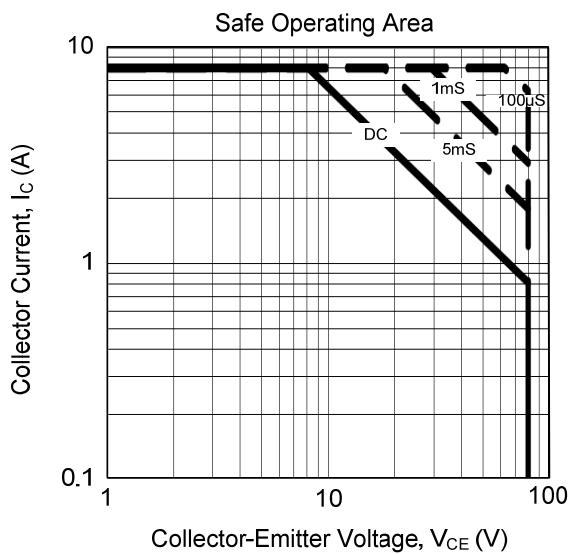
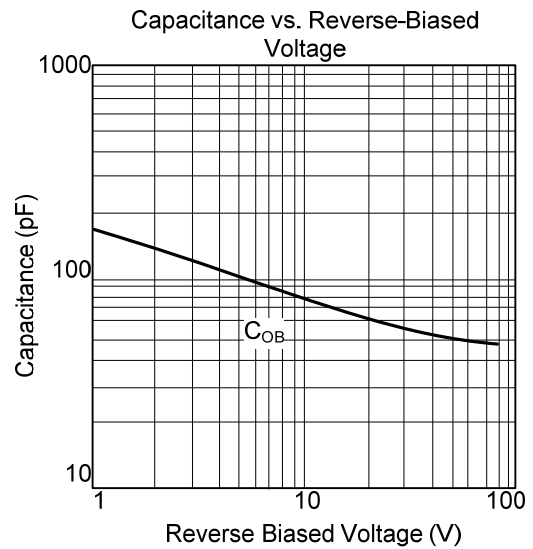
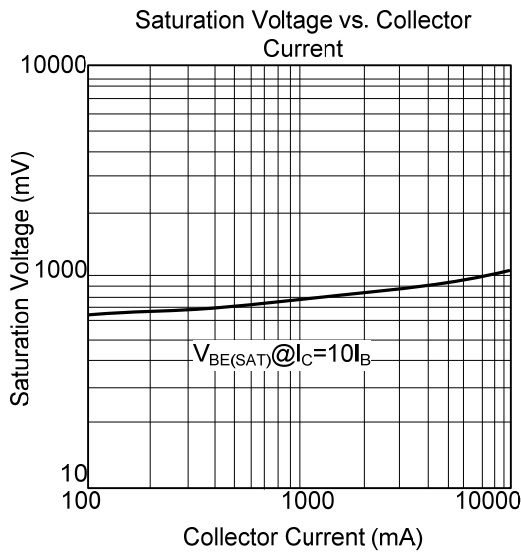
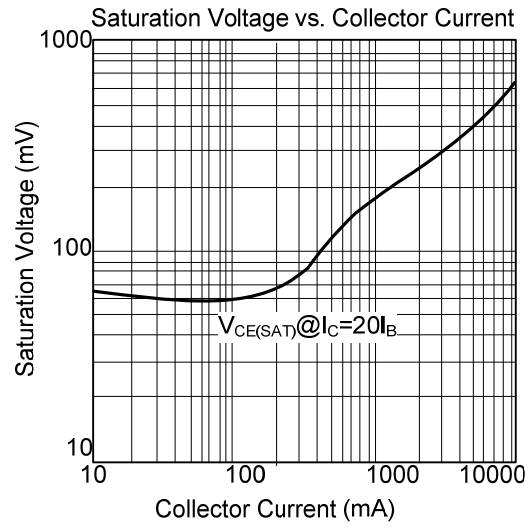
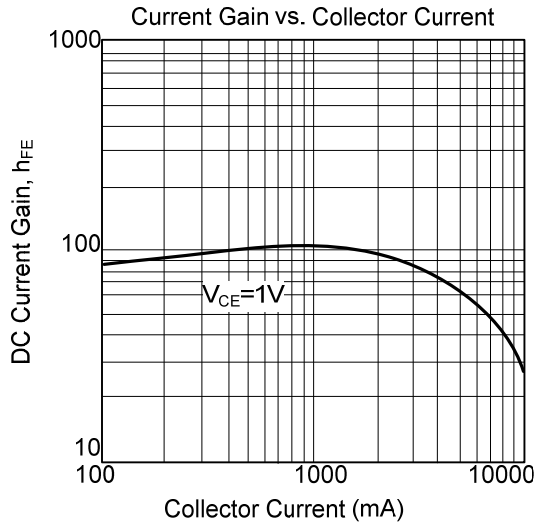
Note: Absolute maximum ratings are those values beyond which the device could be permanently damaged. Absolute maximum ratings are stress ratings only and functional device operation is not implied.

■ ELECTRICAL CHARACTERISTICS ($T_A=25^{\circ}\text{C}$)

PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Collector-Emitter Breakdown Voltage	BV_{CEO}	$I_C=30\text{mA}$, $I_B=0$	80			V
Collector-Emitter Breakdown Voltage	BV_{CES}	$I_C=1\text{mA}$, $I_B=0$	80			V
Emitter-Base Breakdown Voltage	BV_{EBO}	$I_E=1\text{mA}$, $I_C=0$	5			V
Collector Cut-Off Current	I_{CES}	$V_{CB}=80\text{V}$, $V_{EB}=0$			10	μA
Emitter Cut-off Current	I_{EBO}	$V_{EB}=5\text{V}$, $I_C=0$			50	μA
Collector-Emitter Saturation Voltage(Note)	$V_{CE(SAT)}$	$I_C=8\text{A}$, $I_B=0.4\text{A}$			1	V
Base-Emitter Saturation Voltage(Note)	$V_{BE(SAT)}$	$I_C=8\text{A}$, $I_B=0.8\text{A}$			1.5	V
DC Current Gain (Note)	h_{FE1}	$V_{CE}=1\text{V}$, $I_C=2\text{A}$	60		500	
	h_{FE2}	$V_{CE}=1\text{V}$, $I_C=4\text{A}$	40		200	
Output Capacitance	C_{OB}	$V_{CB}=10\text{V}$		130		pF
Transition Frequency	f_T	$V_{CE}=10\text{V}$, $I_C=500\text{mA}$, $f=20\text{MHz}$		50		MHz

Note: Pulse Test: Pulse Width $\leq 380\mu\text{s}$, Duty Cycles $\leq 2\%$.

TYPICAL CHARACTERISTICS



UTC assumes no responsibility for equipment failures that result from using products at values that exceed, even momentarily, rated values (such as maximum ratings, operating condition ranges, or other parameters) listed in products specifications of any and all UTC products described or contained herein. UTC products are not designed for use in life support appliances, devices or systems where malfunction of these products can be reasonably expected to result in personal injury. Reproduction in whole or in part is prohibited without the prior written consent of the copyright owner. UTC reserves the right to make changes to information published in this document, including without limitation specifications and product descriptions, at any time and without notice. This document supersedes and replaces all information supplied prior to the publication hereof.