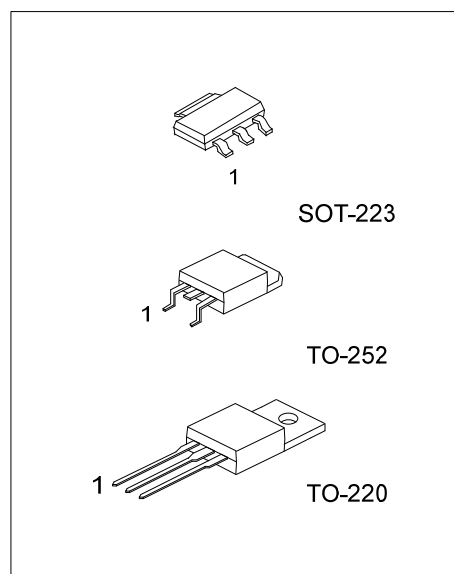


**HJ44H11****NPN SILICON TRANSISTOR****NPN EPITAXIAL PLANAR
TRANSISTOR****■ DESCRIPTION**

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

HJ44H11L-AA3-R (1) Packing Type (2) Package Type (3) Lead Free	(1) R: Tape Reel, T: Tube (2) AA3: SOT-223, TA3: TO-220, TN3: TO-252 (3) G: Halogen Free, L: Lead Free
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■ 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	$^{\circ}\text{C}$

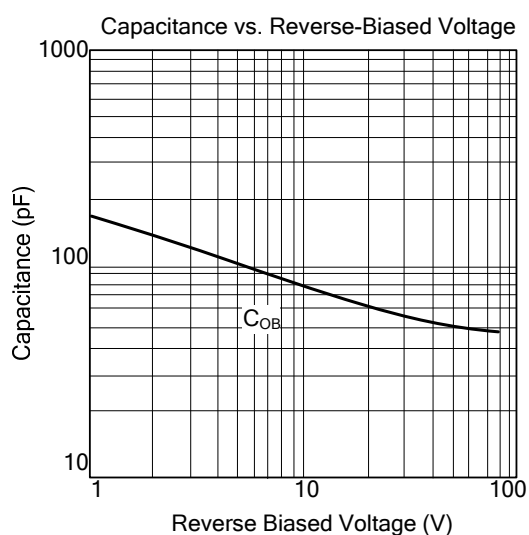
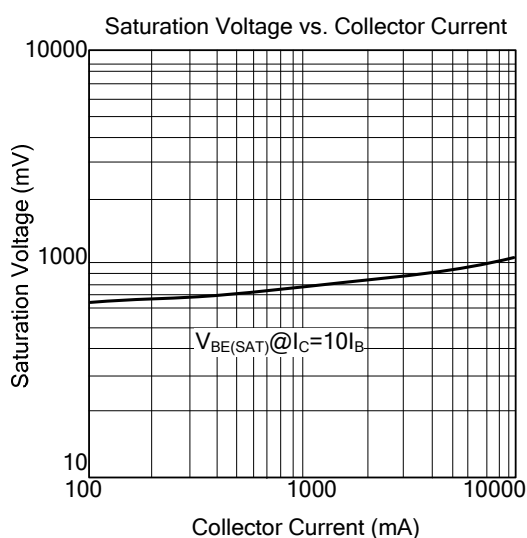
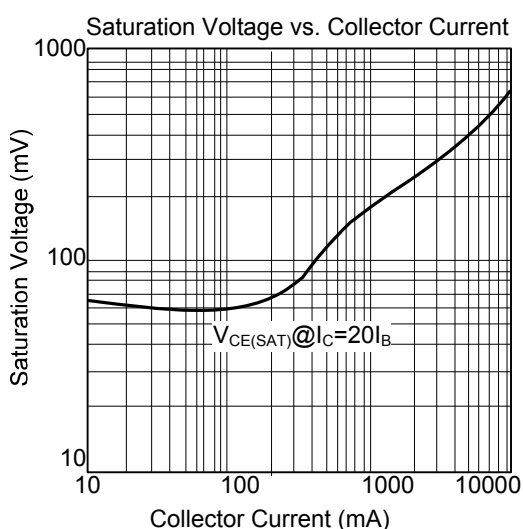
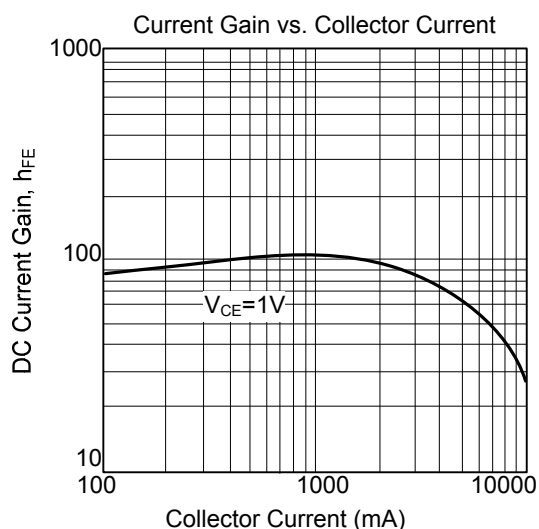
Note: Absolute maximum ratings are those values beyond which the device could be permanently damaged.
Absolute maximum ratings are stress ratings only and functional device operation is not implied.

■ 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			
	h_{FE2}	$V_{CE}=1\text{V}$, $I_C=4\text{A}$	40			
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



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