



HJ44H11-P

NPN SILICON TRANSISTOR

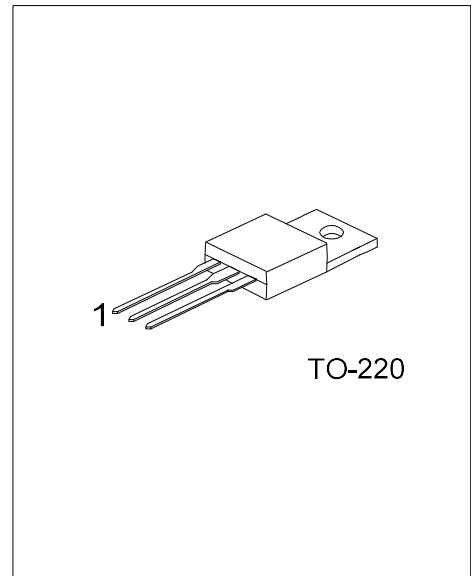
NPN EPITAXIAL PLANAR TRANSISTOR

■ DESCRIPTION

The UTC **HJ44H11-P** 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.

■ FEATURES

* Green Product



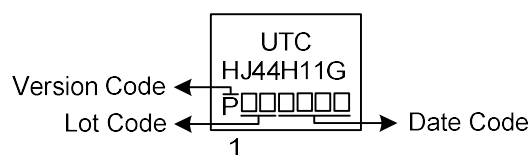
■ ORDERING INFORMATION

Ordering Number	Package	Pin Assignment			Packing
		1	2	3	
HJ44H11G-P-TA3-T	TO-220	B	C	E	Tube

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

HJ44H11G-P-TA3-T	(1)Packing Type (2)Package Type (3)Version Code (4)Green Package	(1) T: Tube (2) TA3: TO-220 (3) Version P (4) G: Halogen Free and Lead Free
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■ MARKING



■ **ABSOLUTE MAXIMUM RATINGS** ($T_A = 25^\circ\text{C}$, unless otherwise specified)

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	Continuous	I_C	10	A
	Peak ($T_C=25^\circ\text{C}$)	I_{CM}	15	A
Base Current		I_B	5	A
Power Dissipation ($T_C=25^\circ\text{C}$)		P_D	65	W
Junction Temperature		T_J	$-40 \sim +150$	$^\circ\text{C}$
Storage Temperature		T_{STG}	$-55 \sim +150$	$^\circ\text{C}$

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.

■ **THERMAL DATA**

PARAMETER	SYMBOL	RATINGS	UNIT
Junction to Case	θ_{JC}	1.92	$^\circ\text{C/W}$

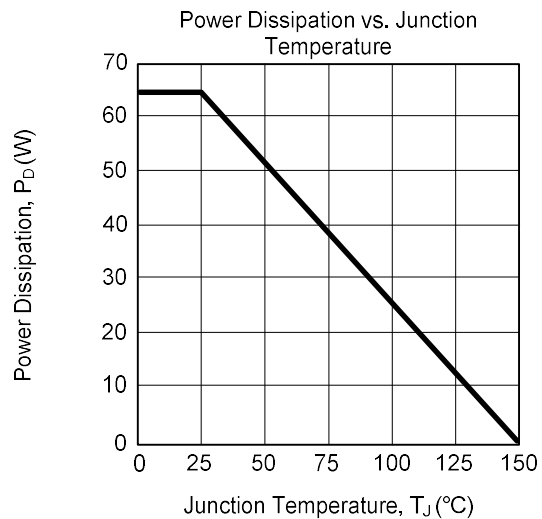
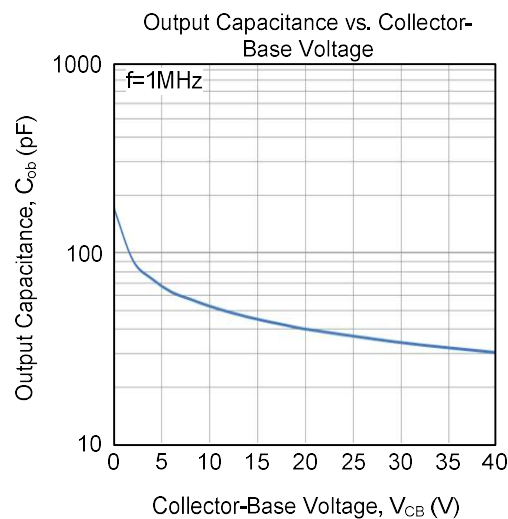
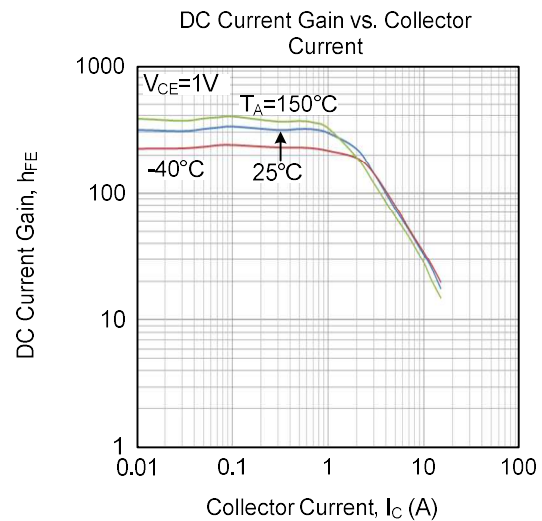
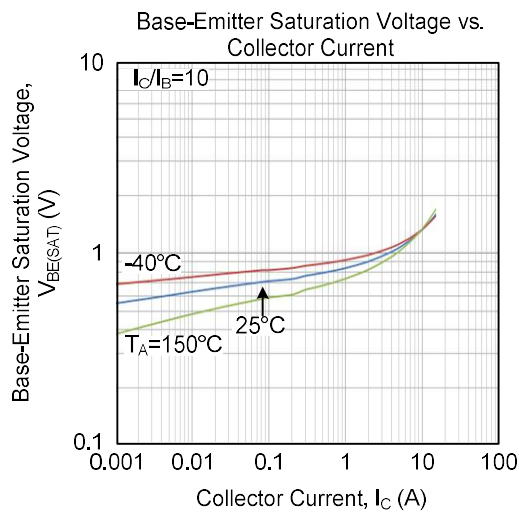
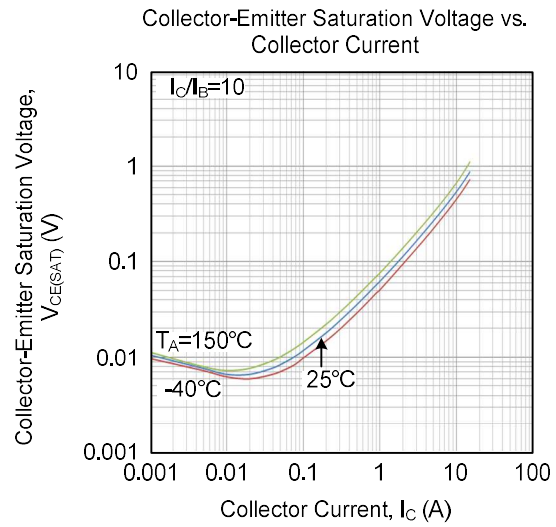
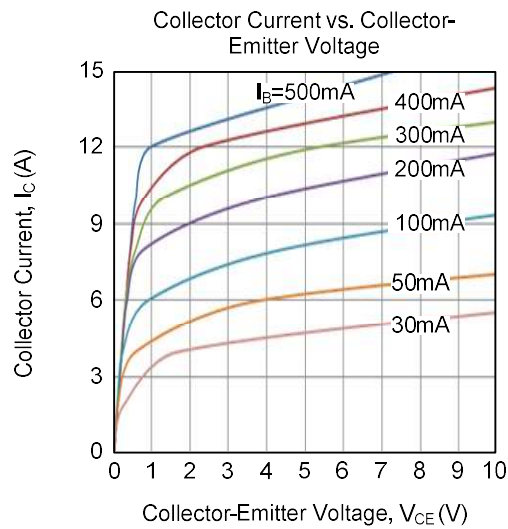
Note: Device mounted on FR-4 substrate P_C board, 2oz copper, with 1inch square copper plate.

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

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_{CBO}	$V_{CB}=80\text{V}$, $I_E=0$			1	μA
Collector Cut-Off Current	I_{CES}	$V_{CE}=80\text{V}$, $V_{EB}=0$			1	μA
Emitter Cut-off Current	I_{EBO}	$V_{EB}=5\text{V}$, $I_C=0$			1	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}	$V_{CB}=10\text{V}$		53		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 Cycle $\leq 2\%$.

■ TYPICAL CHARACTERISTICS



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