

**BU406A**

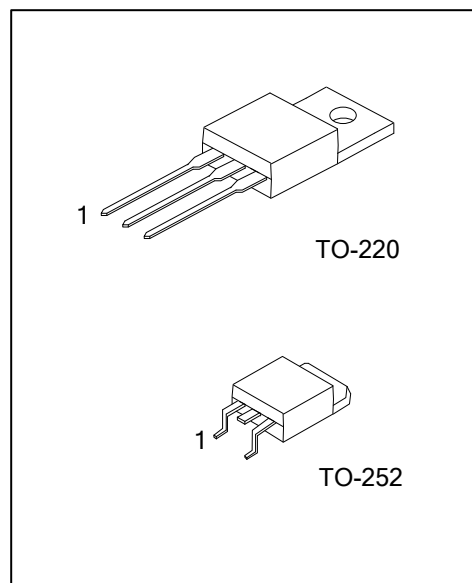
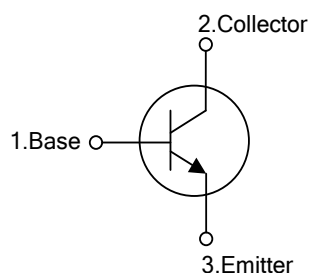
Advance

NPN EXPITAXIAL TRANSISTOR**NPN EXPITAXIAL PLANAR TRANSISTOR****DESCRIPTION**

The UTC **BU406A** is a NPN epitaxial planar transistor, designed for using in general purpose amplifier and switching applications.

FEATURES

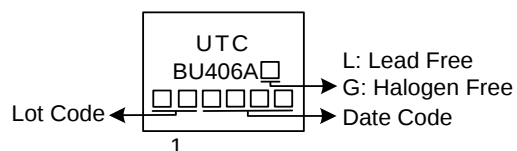
* High voltage

SYMBOL**ORDERING INFORMATION**

Ordering Number		Package	Pin Assignment			Packing
Lead Free	Halogen Free		1	2	3	
BU406AL-TA3-T	BU406AG-TA3-T	TO-220	B	C	E	Tube
BU406AL-TN3-R	BU406AG-TN3-R	TO-252	B	C	E	Tape Reel

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

BU406AG-TA3-T (1) Packing Type (2) Package Type (3) Green Package	(1) T: Tube, R: Tape Reel (2) TA3: TO-220, TN3: TO-252 (3) G: Halogen Free and Lead Free, L: Lead Free
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MARKING

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

PARAMETER		SYMBOL	RATINGS	UNIT
Collector-Base Voltage		V_{CBO}	100	V
Collector-Emitter Voltage		V_{CEO}	100	V
Emitter-Base Voltage		V_{EBO}	5	V
Collector Current	DC	I_C	6	A
	Pulse		10	A
Base Current		I_B	2	A
Collector Dissipation ($T_C=25^{\circ}\text{C}$)	TO-220	P_C	60	W
	TO-252		15	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.

■ **THERMAL DATA**

PARAMETER		SYMBOL	RATINGS	UNIT
Junction to Case	TO-220	θ_{JC}	2.08	$^{\circ}\text{C/W}$
	TO-252		8.33	$^{\circ}\text{C/W}$

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

PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Collector Emitter Sustaining Voltage (Note)	BV_{CEO}	$I_C=30\text{mA}$, $I_B=0$	100			V
Collector Cutoff Current	I_{CEO}	$V_{CE}=60\text{V}$, $I_B=0$			0.7	mA
Collector Cutoff Current	I_{CES}	$V_{CB}=100\text{V}$, $V_{EB}=0$			400	μA
Emitter Cutoff Current	I_{EBO}	$V_{BE}=5\text{V}$, $I_C=0$			1	mA
Collector-Emitter Saturation Voltage (Note)	$V_{CE(SAT)}$	$I_C=3\text{A}$, $I_B=600\text{mA}$			1.5	V
Base Emitter On Voltage	$V_{BE(ON)}$	$V_{CE}=4\text{V}$, $I_C=6\text{A}$			2	V
DC Current Gain (Note)	h_{FE1}	$V_{CE}=4\text{V}$, $I_C=0.3\text{A}$	30			
	h_{FE2}	$V_{CE}=4\text{V}$, $I_C=3\text{A}$	15		75	
Current Gain Bandwidth Product	f_T	$V_{CE}=10\text{V}$, $I_C=500\text{mA}$, $f=1\text{MHz}$	3			MHz

Note: Pulse Test: $P_W \leq 300\mu\text{s}$, Duty Cycle $\leq 2\%$.

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