



BU407

NPN SILICON TRANSISTOR

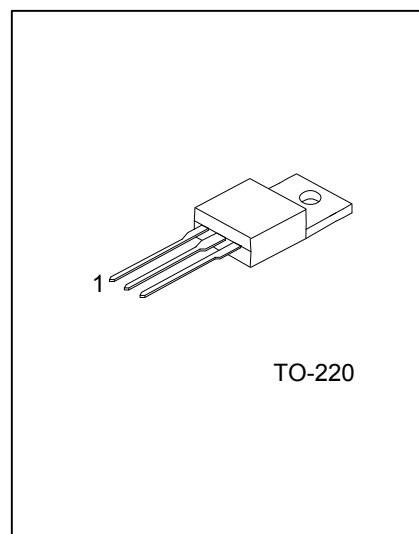
NPN EPITAXIAL PLANAR TRANSISTOR

DESCRIPTION

The UTC **BU407** is a NPN epitaxial planar transistor, designed for use in TV Horizontal output and switching applications.

FEATURES

* High breakdown voltage



Lead-free: BU407L
Halogen-free: BU407G

ORDERING INFORMATION

Ordering Number			Package	Pin Assignment			Packing
Normal	Lead Free Plating	Halogen Free		1	2	3	
BU407-x-TA3-T	BU407L-x-TA3-T	BU407G-x-TA3-T	TO-220	B	C	E	Tube

BU407L-x-AE3-T (1) Packing Type (2) Package Type (3) Rank (4) Lead Plating	(1) T: Tube (2) TA3: TO-220 (3) x: refer to Classification of h_{FE2} (4) G: Halogen Free, L: Lead Free, Blank: Pb/Sn
--	---

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

PARAMETER	SYMBOL	RATINGS	UNIT
Collector Base Voltage	V_{CBO}	330	V
Collector to Emitter Voltage	V_{CEO}	150	V
Emitter to Base Voltage	V_{EBO}	6	V
Collector Current	I_C	7	A
Base Current	I_B	4	A
Collector Dissipation ($T_a=25^\circ\text{C}$)	P_C	60	W
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.

■ THERMAL DATA

PARAMETER	SYMBOL	MIN	TYP	MAX	UNIT
Junction to Ambient	θ_{JA}			70	$^\circ\text{C/W}$
Junction to Case	θ_{JC}			2.08	$^\circ\text{C/W}$

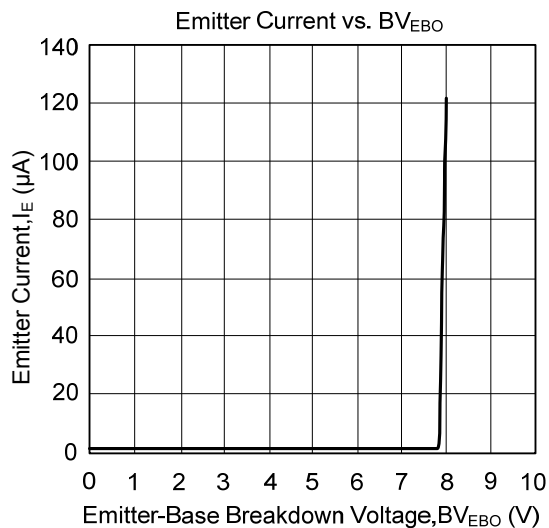
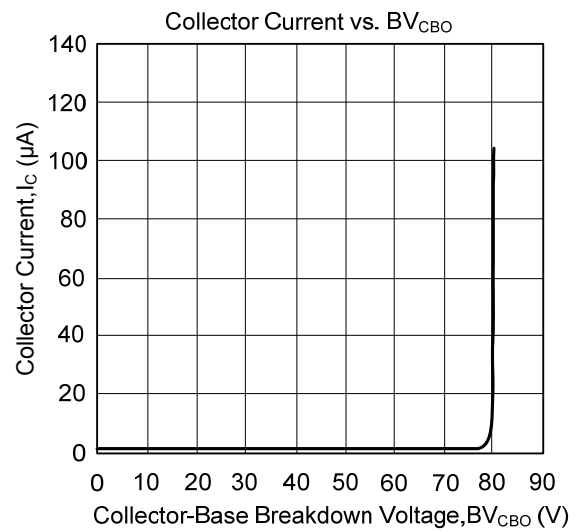
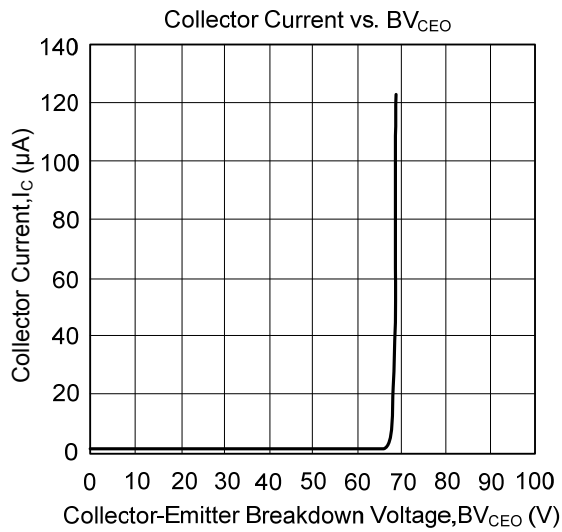
■ ELECTRICAL CHARACTERISTICS ($T_a=25^\circ\text{C}$, unless otherwise specified)

PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Collector Emitter Sustaining Voltage	BV_{CEO}	$I_C=100\text{ mA}, I_B=0$	150			V
Collector-Emitter Saturation Voltage	$V_{CE(SAT)}$	$I_C=5\text{ A}, I_B=0.5\text{ A}$			1	V
Base-Emitter On Voltage	$V_{BE(SAT)}$				1.2	V
Collect Cutoff Current'	I_{CES}	$V_{CE}=400\text{ V}$			5	mA
Emitter Cutoff Current	I_{EBO}	$V_{BE}=6\text{ V}, I_C=0$			1	mA
DC Current Gain	h_{FE1}	$I_C=500\text{ mA}, V_{CE}=5\text{ V}$	25			
	h_{FE2}	$I_C=2\text{ A}, V_{CE}=5\text{ V}$	35		200	
	h_{FE3}	$I_C=5\text{ A}, V_{CE}=5\text{ V}$	10			
Current Gain Bandwidth Product	f_T	$I_C=500\text{ mA}, V_{CE}=10\text{ V}, f=1\text{ MHz}$	10			MHz

■ CLASSIFICATION OF h_{FE2}

RANK	B	C	D
RANGE	35-85	75-125	115-200

■ 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. The information presented in this document does not form part of any quotation or contract, is believed to be accurate and reliable and may be changed without notice.