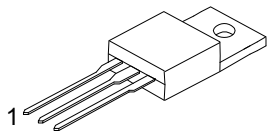
BU407

NPN SILICON TRANSISTOR

NPN EXPITAXIAL PLANAR TRANSISTOR



TO-220

Lead-free: BU407L
Halogen-free: BU407G

■ DESCRIPTION

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

■ FEATURES

* High breakdown voltage

■ 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°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°C)	P_C	60	W
Junction Temperature	T_J	150	°C
Storage Temperature	T_{STG}	-55 ~ +150	°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	°C/W
Junction to Case	θ_{JC}			2.08	°C/W

■ ELECTRICAL CHARACTERISTICS (T_a=25°C, unless otherwise specified)

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

■ CLASSIFICATION OF h_{FE2}

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

■ TYPICAL CHARACTERISTICS