BU406 – BU407

NPN SILCON EPITAXIAL-BASE POWER TRANSISTORS

They are NPN transistors mounted in Jedec TO-220 plastic package.
They are intended for use in horizontal deflection output stages of large screens MTV receivers with 110o CRT and horizontal deflection for monochrome TV.
They are very high switching speed.
Compliance to RoHS.

ABSOLUTE MAXIMUM RATINGS

Symbol	Ratings		Value	Unit
V_{CEO}	Collector-Emitter Voltage (I_B=0)	BU406	200	V
		BU407	150	
V_{CBO}	Collector-Base Voltage (I_E=0)	BU406	400	V
		BU407	330	
V_{CEX}	Collector-Emitter Voltage (V_{BE}= -2V)	BU406	400	V
		BU407	330	
V_{EBO}	Emitter-Base Voltage (I_C=0)		6	V
I_C	Collector Current		7	A
I_{CM}	Peak Collector Current (10 ms)		15	A
I_B	Base Current		4	A
P_D	Total Device Dissipation (T_C = 25°C)		60	W
T_J	Junction Temperature		150	°C
T_{Stg}	Storage Temperature range		-65 to +150	°C

THERMAL CHARACTERISTICS

Symbol	Ratings	Value	Unit
R_{thJ-a}	Thermal Resistance, Junction to mounting base	70	°C/W
R_{thJ-mb}	Thermal Resistance, Junction to ambient in free air	2.08	°C/W

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ELECTRICAL CHARACTERISTICS

TC=25°C unless otherwise noted

Symbol	Ratings	Test Condition(s)		Min	Typ	Max	Unit
I_{CES}	Collector-Emitter Cutoff Current	V_{CE}=400 V, V_{BE}=0V	BU406	-	-	5	mA
		V_{CE}=330 V, V_{BE}=0V	BU407	-	-	5	
		V_{CE}=250 V, V_{BE}=0V	BU406	-	-	0.1	
		V_{CE}=200 V, V_{BE}=0V	BU407	-	-	0.1	
		V_{CE}=450 V, V_{BE}=0V T_C = 150°C	BU406	-	-	1	
		V_{CE}=200 V, V_{BE}=0V T_C = 150°C	BU407	-	-	1	
I_{EBO}	Emitter Cutoff Current	V_{BE}=6 V, I_C=0	BU406	-	-	1	mA
			BU407				
V_{CEO}	Collector Emitter Breakdown Voltage	I_C=30 m A, I_B= 0	BU406	140	-	-	V
			BU407	150	-	-	
$V_{CE(SAT)}$	Collector-Emitter Saturation Voltage	I_C=5 A, I_B=500 mA	BU406	-	-	1	V
			BU407				
$V_{BE(SAT)}$	Base-Emitter Saturation Voltage	I_C=5 A, I_B=500 mA	BU406	-	-	1.2	
			BU407				
h_{FE}	Dc Current Gain	I_C=4 A, V_{CE}=10 V	BU406	12	-	-	-
		I_C=0.5 A, V_{CE}=10 V	BU407	20	-	-	
f_T	Transition Frequency	I_C=0.5 A, V_{CE}=10 V f= 20MHz	BU406	10	-	-	MHz
			BU407				
C_{obo}	Output Capacitance	V_{CB}= 10 V, I_E= 0 f= 1 MHz	BU406	-	80	-	pFA
			BU407				
t_f	Fall Time	I_C=2 A, V_{CC}= 40V I_{B1}= -I_{B2}=0.5 A L= 150 µH	BU406	-	-	0.75	µs
			BU407				

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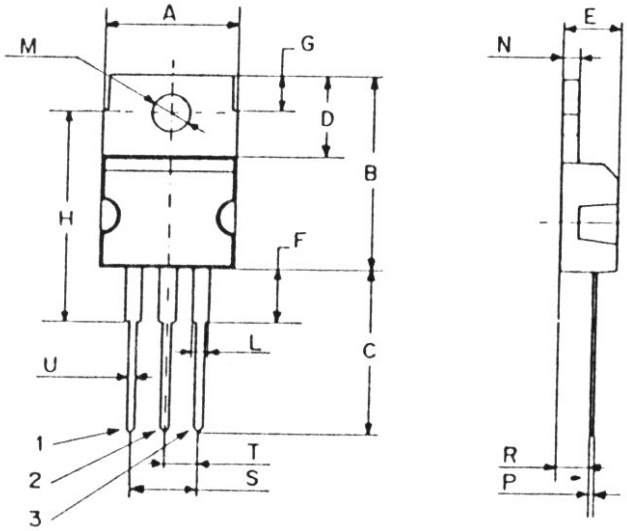
MECHANICAL DATA CASE TO-220

DIMENSIONS (mm)		
	Min.	Max.
A	9,90	10,30
B	15,65	15,90
C	13,20	13,40
D	6,45	6,65
E	4,30	4,50
F	2,70	3,15
G	2,60	3,00
H	15,75	17.15
L	1,15	1,40
M	3,50	3,70
N	-	1,37
P	0,46	0,55
R	2,50	2,70
S	4,98	5,08
T	2.49	2.54
U	0,70	0,90



Pin 1 :	Base
Pin 2 :	Collector
Pin 3 :	Emitter
Case :	Collector

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