Silicon NPN Power Transistors BU406D BU407D

DESCRIPTION

- With TO-220C package
- High voltage
- Fast switching speed
- Low saturation voltage
- Built-in damper diode

APPLICATIONS

- For use in horizontal deflection output stages of TV's and CTV's circuits

PINNING

PIN	DESCRIPTION
1	Base
2	Collector;connected to mounting base
3	Emitter

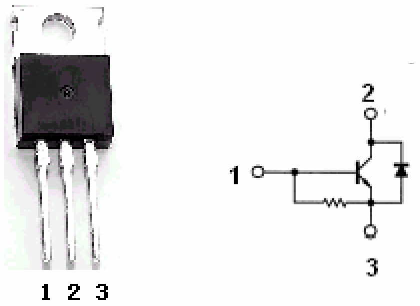

Fig.1 simplified outline (TO-220C) and symbol

Absolut maximum ratings (Ta=25℃)

SYMBOL	PARAMETER		CONDITIONS	VALUE	UNIT
V_{CBO}	Collector-base voltage	BU406D	Open emitter	400	V
		BU407D		330	
V_{CEO}	Collector-emitter voltage	BU406D	Open base	200	V
		BU407D		150	
V_{EBO}	Emitter-base voltage		Open collector	6	V
I_C	Collector current (DC)			7	A
I_{CM}	Collector current-Peak			10	A
I_B	Base current			4	A
P_{tot}	Total power dissipation		T_C=25℃	60	W
T_j	Maximum operating junction temperature			150	℃
T_{stg}	Storage temperature			-65~150	℃

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j\text{-}c}$	Thermal resistance junction to case	2.08	℃/W

CHARACTERISTICS

T_j=25℃ unless otherwise specified

SYMBOL	PARAMETER		CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{CEO(SUS)}$	Collector-emitter sustaining voltage	BU406D	I_C=100mA ; I_B=0	200			V
		BU407D		150			
V_{CEsat}	Collector-emitter saturation voltage		I_C=5A ;I_B=0.65A			1.0	V
V_{BEsat}	Base-emitter saturation voltage		I_C=5A ;I_B=0.65A			1.3	V
I_{CEV}	Collector cut-off current	BU406D	V_{CE}=400V; V_{BE}=-1.5V			15	mA
		BU407D	V_{CE}=330V; V_{BE}=-1.5V				
I_{EBO}	Emitter cut-off current		V_{EB}=6.0V; I_C=0			400	mA
h_{FE}	DC current gain		I_C=2A ; V_{CE}=5V		15		
V_F	Diode forward voltage		I_F=5A			1.5	V
f_T	Transition frequency		I_C=0.5A ;V_{CE}=10V;f=1.0MHz	10			MHz
t_f	Fall time		I_C=5A ;V_{CC}=40V I_{Bend}=0.65A			0.75	μs

PACKAGE OUTLINE

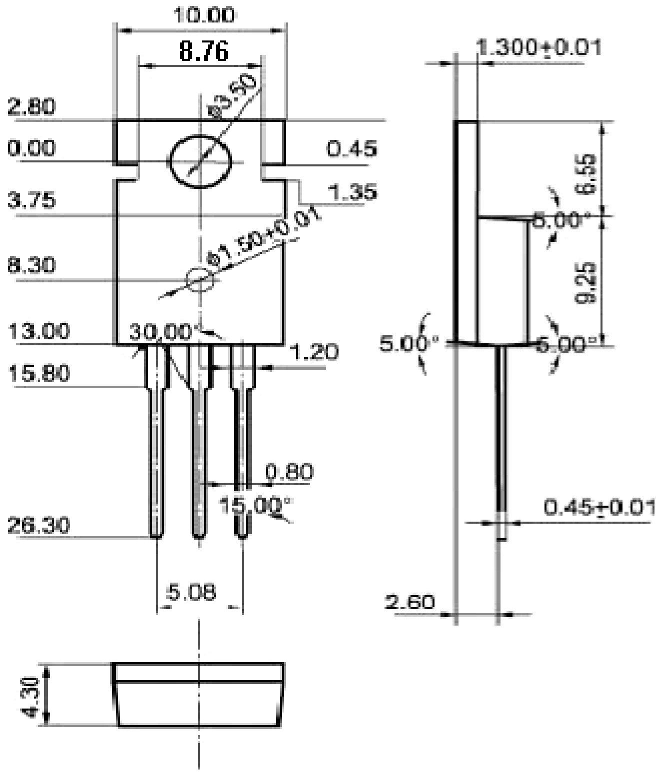

Fig.2 Outline dimensions (unindicated tolerance: ±0.10mm)