Pb Free Plating Product

BU508A

HIGH VOLTAGE FAST-SWITCHING SILICON NPN POWER TRANSISTOR

DESCRIPTION

- With TO-3PN package
- High voltage
- High speed switching

APPLICATIONS

- For use in horizontal deflection circuits of large screen colour TV receivers.

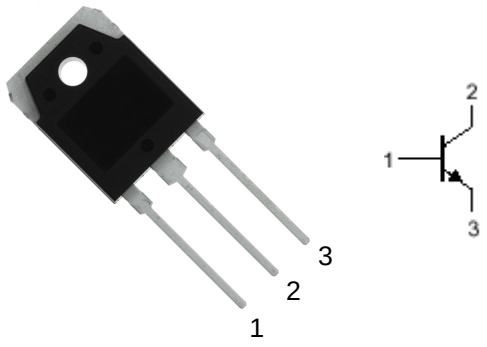


Fig.1 simplified outline (TO-3PN) and symbol

PINNING

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

Absolute maximum ratings (Ta=25℃)

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
V_{CBO}	Collector-base voltage	Open emitter	1200	V
V_{CEO}	Collector-emitter voltage	Open base	700	V
V_{EBO}	Emitter-base voltage	Open collector	10	V
I_C	Collector current (DC)		8	A
I_{CM}	Collector current (Pulse)		15	A
P_C	Collector power dissipation	T_C=25℃	125	W
T_j	Junction temperature		150	℃
T_{stg}	Storage temperature		-65~150	℃

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j\text{-}c}$	Thermal resistance junction case	1.0	℃/W

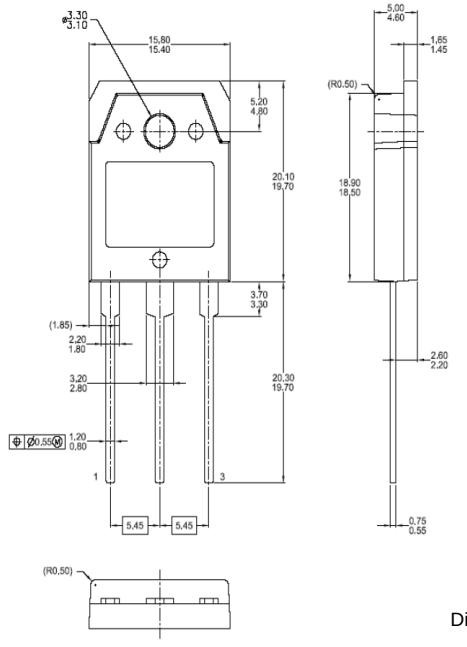
CHARACTERISTICS

Tj=25℃ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{(BR)EBO}$	Emitter-base breakdown voltage	I_E=10mA; I_C=0	10			V
$V_{CEO(SUS)}$	Collector-emitter sustaining voltage	I_C=100mA; I_B=0	700			V
V_{CEsat}	Collector-emitter saturation voltage	I_C=4.5A; I_B=2A			1.0	V
V_{BEsat}	Base-emitter saturation voltage	I_C=4.5A; I_B=2A			1.3	V
I_{CES}	Collector cut-off current	V_{CE}=1500V; V_{BE}=0 T_C=125 ° C			1.0 2.0	mA
I_{EBO}	Emitter cut-off current	V_{EB}=5V; I_C=0			0.1	mA
h_{FE}	DC current gain	I_C=1A ; V_{CE}=5V	8			
t_s	Storage time	I_C=4.5A ; V_{CC}=140V I_B=1.8A; L_C=0.9mH L_B=3 μ H		7		μ s
t_f	Fall time			0.55		μ s
f_T	Transition frequency	I_C=0.1A ; V_{CE}=5V		7		MHz

Mechanical Dimensions

TO-3PN



Dimensions in Millimeters