Silicon NPN Power Transistors BU931P

DESCRIPTION

- With TO-3PN package
- DARLINGTON
- High breakdown voltage

APPLICATIONS

- High ruggedness electronic ignitions.
- High voltage ignition coil driver

PINNING

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

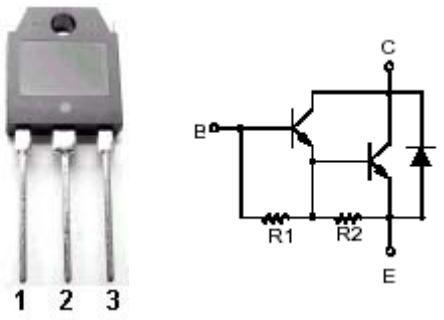

Fig.1 simplified outline (TO-3PN) and symbol

Absolute maximum ratings (Ta=25℃)

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
V_{CBO}	Collector-base voltage	Open emitter	500	V
V_{CEO}	Collector-emitter voltage	Open base	400	V
V_{EBO}	Emitter-base voltage	Open collector	5	V
I_C	Collector current		15	A
I_{CM}	Collector current -peak		30	A
I_B	Base current		1	A
I_{BM}	Base current -peak		5	A
P_T	Total power dissipation	T_C=25℃	135	W
T_j	Max.operating junction temperature		175	℃
T_{stg}	Storage temperature		-65~175	℃

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j\text{-}case}$	Thermal resistance junction case	1.1	℃/W

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CHARACT ERISTICS

Tj=25℃ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{CEO(SUS)}$	Collector-emitter sustaining voltage	I_C=0.1 A ;I_B=0;L=10mH	400			V
$V_{CEsat-1}$	Collector-emitter saturation voltage	I_C=7A ;I_B=0.07A			1.6	V
$V_{CEsat-2}$	Collector-emitter saturation voltage	I_C=8A; I_B=0.1 A			1.8	V
$V_{CEsat-3}$	Collector-emitter saturation voltage	I_C=10A; I_B=0.25 A			1.8	V
$V_{BEsat-1}$	Base-emitter saturation voltage	I_C=7A ;I_B=0.07A			2.2	V
$V_{BEsat-2}$	Base-emitter saturation voltage	I_C=8A; I_B=0.1 A			2.4	V
$V_{BEsat-3}$	Base-emitter saturation voltage	I_C=10A; I_B=0.25 A			2.5	V
I_{CES}	Collector cut-off current	V_{CE} =500V; V_{BE}=0; T_j=125℃			0.1 0.5	mA
I_{CEO}	Collector cut-off current	V_{CE} =450V; I_B=0; T_j=125℃			0.1 0.5	mA
I_{EBO}	Emitter cut-off current	V_{EB}=5V; I_C=0			20	mA
h_{FE}	DC current gain	I_C=5A ; V_{CE}=10V	300			
V_F	Diode forward voltage	I_F=10A			2.5	V

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PACKAGE OUTLINE

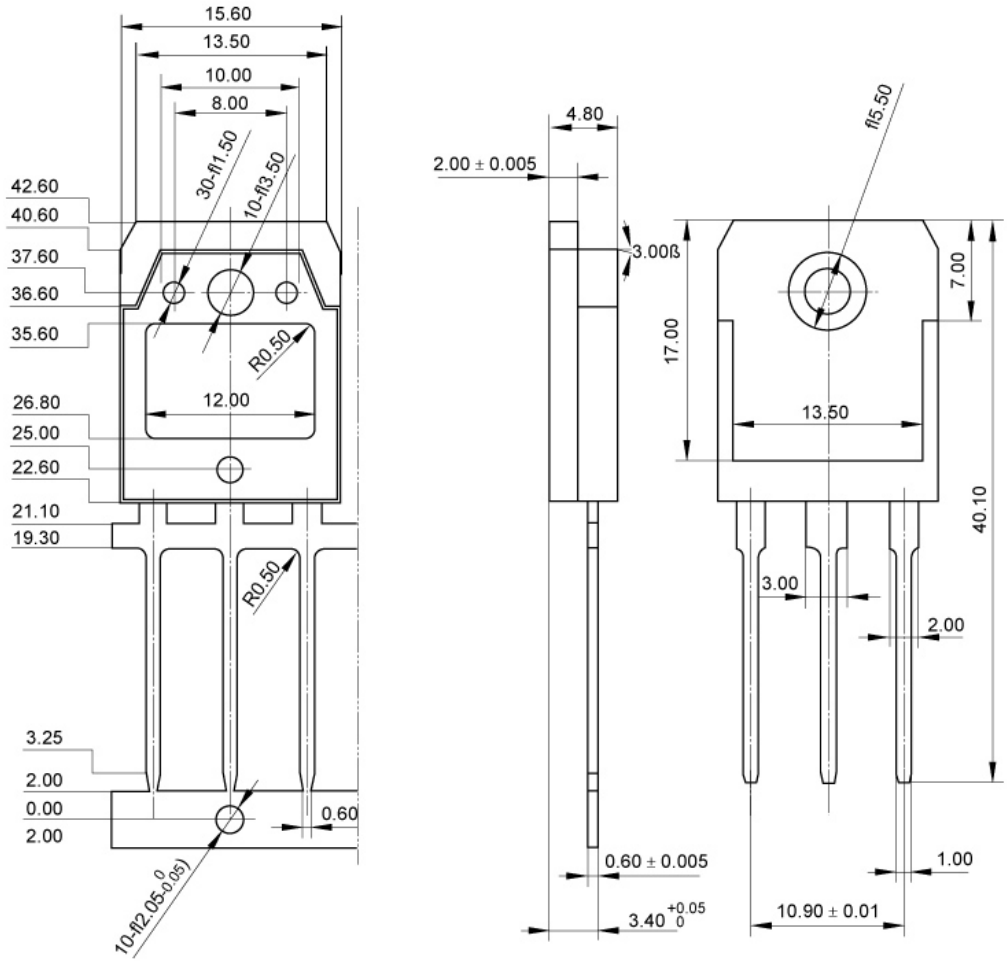

Fig.2 outline dimensions (unindicated tolerance:±0.10 mm)