Silicon NPN Power Transistors BU941

DESCRIPTION

·With TO-3 package
·High voltage
·DARLINGTON

APPLICATIONS

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

PINNING(see fig.2)

PIN	DESCRIPTION
1	Base
2	Emitter
3	Collector

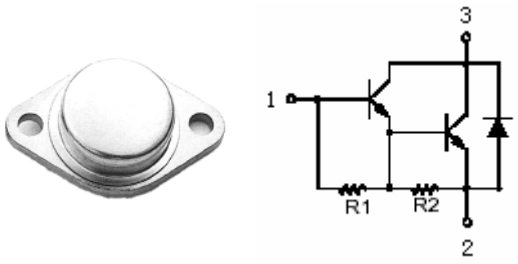

Fig.1 simplified outline (TO-3) and symbol

Absolute maximum ratings (Tc=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□	180	W
T_j	Junction temperature		-65~200	□
T_{stg}	Storage temperature		-65~200	□

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j\text{-}C}$	Thermal resistance junction to case	0.97	□/W

CHARACTERISTICS

Tj=25□ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{CEO(SUS)}$	Collector-emitter sustaining voltage	I_C=0.1A; I_B=0;L=10mH	400			V
$V_{CE(sat-1)}$	Collector-emitter saturation voltage	I_C=8 A;I_B=100mA			1.6	V
$V_{CE(sat-2)}$	Collector-emitter saturation voltage	I_C=10 A;I_B=250mA			1.8	V
$V_{CE(sat-3)}$	Collector-emitter saturation voltage	I_C=12 A;I_B=300mA			2.0	V
$V_{BE(sat-1)}$	Base-emitter saturation voltage	I_C=8 A;I_B=100mA			2.2	V
$V_{BE(sat-2)}$	Base-emitter saturation voltage	I_C=10 A;I_B=250mA			2.5	V
$V_{BE(sat-3)}$	Base-emitter saturation voltage	I_C=12 A;I_B=300mA			2.7	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

PACKAGE OUTLINE

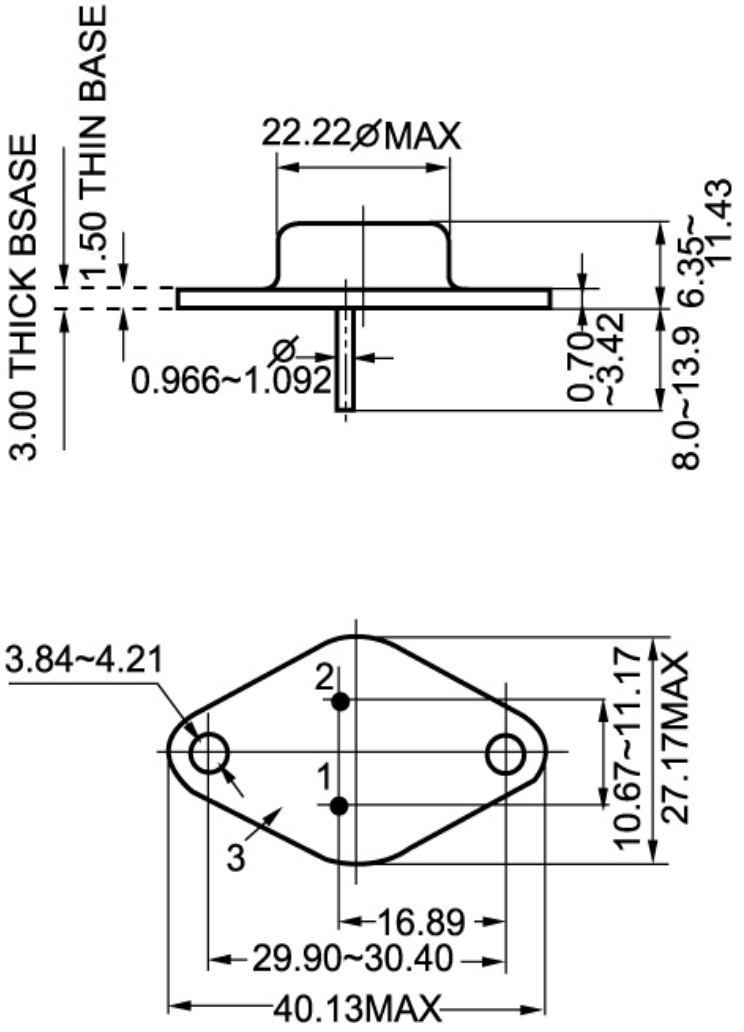

Fig.2 Outline dimensions