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Silicon NPN Power Transistors

2N6686

DESCRIPTION

·With TO-3 package
·Fast switching speed
·Low collector saturation voltage

APPLICATIONS

·For power supplies and other high-voltage switching applications

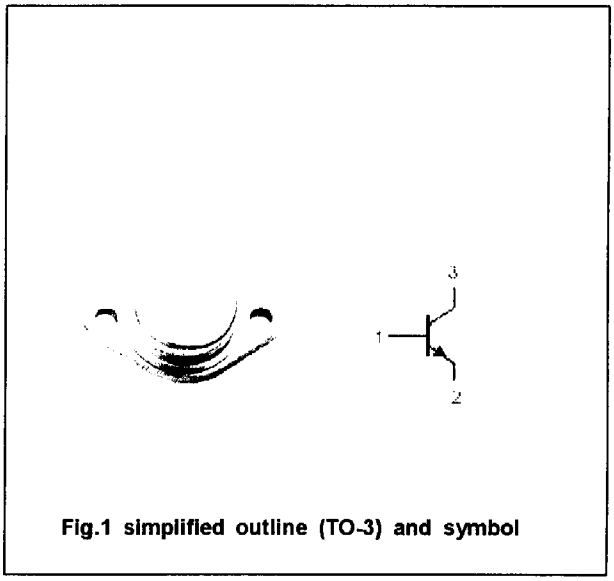

Fig.1 simplified outline (TO-3) and symbol

PINNING

PIN	DESCRIPTION
1	Base
2	Emitter
3	Collector

Absolute maximum ratings(Ta=□)

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
V_{CBO}	Collector-base voltage	Open emitter	260	V
V_{CEO}	Collector-emitter voltage	Open base	160	V
V_{EBO}	Emitter-base voltage	Open collector	8	V
I_C	Collector current		25	A
I_{CM}	Collector current-peak		50	A
I_B	Base current		8	A
P_C	Collector power dissipation	T_C=25□	200	W
T_j	Junction temperature		200	□
T_{stg}	Storage temperature		-65~200	□

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	VALUE	UNIT
$R_{th\,j\text{-}c}$	Thermal resistance junction to case	0.875	□/W

CHARACTERISTICS

Tj=25□ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{CEO(SUS)}$	Collector-emitter sustaining voltage	I_C=0.2A ;I_B=0	160			V
V_{CEsat}	Collector-emitter saturation voltage	I_C=25A; I_B=2.5A			1.5	V
V_{BEsat}	Base-emitter saturation voltage	I_C=25A; I_B=2.5A			1.8	V
I_{CEV}	Collector cut-off current	V_{CE}=260V; V_{BE}=-1.5V			50	μA
I_{EBO}	Emitter cut-off current	V_{EB}=8V; I_C=0			100	μA
h_{FE-1}	DC current gain	I_C=1A ; V_{CE}=2V	30			
h_{FE-2}	DC current gain	I_C=10A ; V_{CE}=2V	25		100	
h_{FE-3}	DC current gain	I_C=25A ; V_{CE}=2V	15			
f_T	Transition frequency	I_C=1A ; V_{CE}=10V	20		100	MHz

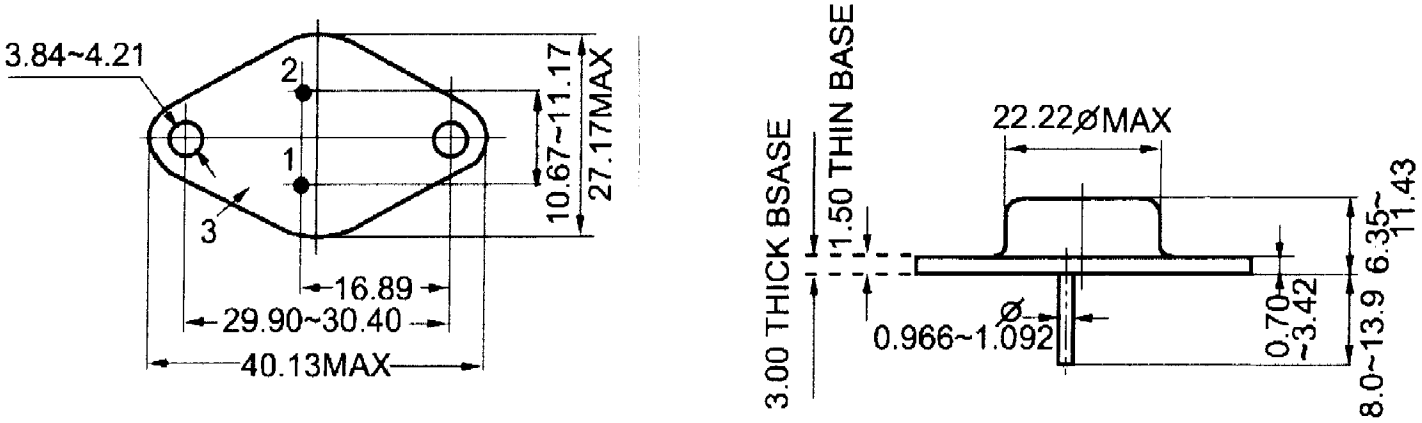

Fig.2 outline dimensions (unindicated tolerance:±0.1mm)