Silicon NPN Power Transistors BDY55

DESCRIPTION

·With TO-3 package
·High current capability
·Fast switching speed

APPLICATIONS

·LF large signal power amplification.

PINNING (See Fig.2)

PIN	DESCRIPTION
1	Base
2	Emitter
3	Collector

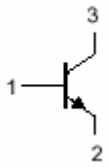

Fig.1 simplified outline (TO-3) and symbol

Absolute maximum ratings(Ta=25□)

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
V_{CBO}	Collector-base voltage	Open emitter	100	V
V_{CEO}	Collector-emitter voltage	Open base	60	V
V_{EBO}	Emitter-base voltage	Open collector	7	V
I_C	Collector current		15	A
I_B	Base current		7	A
P_T	Total power dissipation	T_C=25□	117	W
T_j	Junction temperature		200	□
T_{stg}	Storage temperature		-65~200	□

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j\text{-}c}$	Thermal resistance from junction to case	1.5	□/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	60			V
$V_{CEsat-1}$	Collector-emitter saturation voltage	I_C=4A ;I_B=0.4A			1.1	V
$V_{CEsat-2}$	Collector-emitter saturation voltage	I_C=10A ;I_B=3.3A			2.5	V
V_{BE}	Base-emitter on voltage	I_C=4 A; V_{CE}=4V			1.8	V
I_{CEX}	Collector cut-off current	V_{CE}=100V; V_{BE}=-1.5V T_C=150□			5.0 30	mA
I_{CEO}	Collector cut-off current	V_{CE}=30V; I_B=0			0.7	mA
I_{EBO}	Emitter cut-off current	V_{EB}=7V; I_C=0			5.0	mA
h_{FE-1}	DC current gain	I_C=4A ; V_{CE}=4V	20		70	
h_{FE-2}	DC current gain	I_C=10A ; V_{CE}=4V	10			
f_T	Transition frequency	I_C=1A ; V_{CE}=4V;f=10MHz	10			MHz

PACKAGE OUTLINE

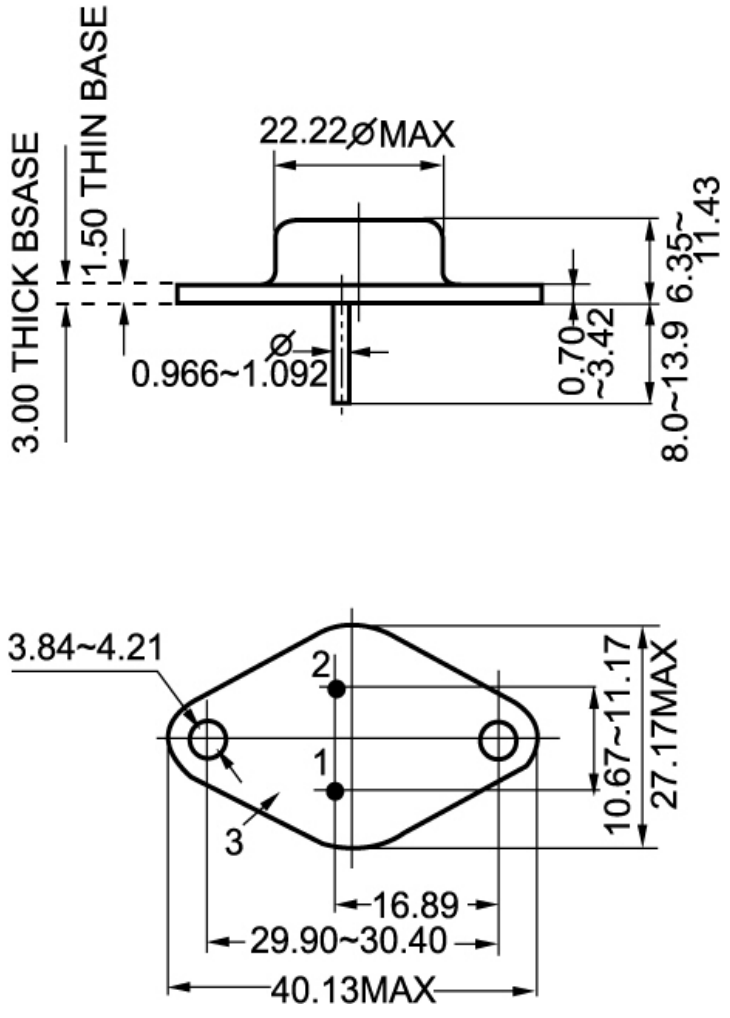

Fig.2 Outline dimensions