Silicon PNP Power Transistors 2N6436 2N6437 2N6438

DESCRIPTION

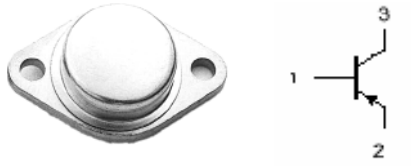
·With TO-3 package
·High DC current gain
·Fast switching times
·Low collector saturation voltage
·Complement to type 2N6338~2N6341

APPLICATIONS

·For use in industrial-military power amplifier and switching circuit applications

PINNING(see Fig.2)

PIN	DESCRIPTION
1	Base
2	Emitter
3	Collector



F

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

Absolute maximum ratings(Ta=□)

SYMBOL	PARAMETER		CONDITIONS	VALUE	UNIT
V_{CBO}	Collector-base voltage	2N6436	Open emitter	-100	V
		2N6437		-120	
		2N6438		-140	
V_{CEO}	Collector-emitter voltage	2N6436	Open base	-80	V
		2N6437		-100	
		2N6438		-120	
V_{EBO}	Emitter-base voltage		Open collector	-6	V
I_C	Collector current			-25	A
I_{CM}	Collector current-peak			-50	A
I_{BC}	Base current			-10	A
P_D	Total 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
$V_{(SUS)CEO}$	Collector-emitter sustaining voltage	2N6436	I_C=-50mA ;I_B=0	-80			V
		2N6437		-100			
		2N6438		-120			
$V_{CEsat-1}$	Collector-emitter saturation voltage		I_C=-10A; I_B=-1.0A			-1.0	V
$V_{CEsat-2}$	Collector-emitter saturation voltage		I_C=-25A; I_B=-2.5A			-1.8	V
$V_{BE\ sat-1}$	Base-emitter saturation voltage		I_C=-10A; I_B=-1.0A			-1.8	V
$V_{BE\ sat-2}$	Base-emitter saturation voltage		I_C=-25A; I_B=-2.5A			-2.5	V
I_{CEX}	Collector cut-off current		V_{CE}=Rated V_{CEO}; V_{EB}=-1.5V T_C=150□			-10 -1.0	μA mA
I_{CBO}	Collector cut-off current		V_{CB}=Rated V_{CB}; I_E=0			-10	μA
I_{CEO}	Collector cut-off current	2N6436	V_{CE}= -40V,I_B=0			-50	μA
		2N6437	V_{CE}=- 50V,I_B=0				
		2N6438	V_{CE}= -60V,I_B=0				
I_{EBO}	Emitter cut-off current		V_{EB}=-6V; I_C=0			-100	μA
h_{FE-1}	DC current gain		I_C=-0.5A ; V_{CE}=-2V	30			
h_{FE-2}	DC current gain		I_C=-10A ; V_{CE}=-2V	20		120	
h_{FE-3}	DC current gain		I_C=-25A ; V_{CE}=-2V	12			
C_{OB}	Output capacitance		I_E=0 ; V_{CB}=-10V;f=1MHz			700	pF
f_T	Transition frequency		I_C=-1A ; V_{CE}=-10V;f=10MHz	40			MHz

PACKAGE OUTLINE

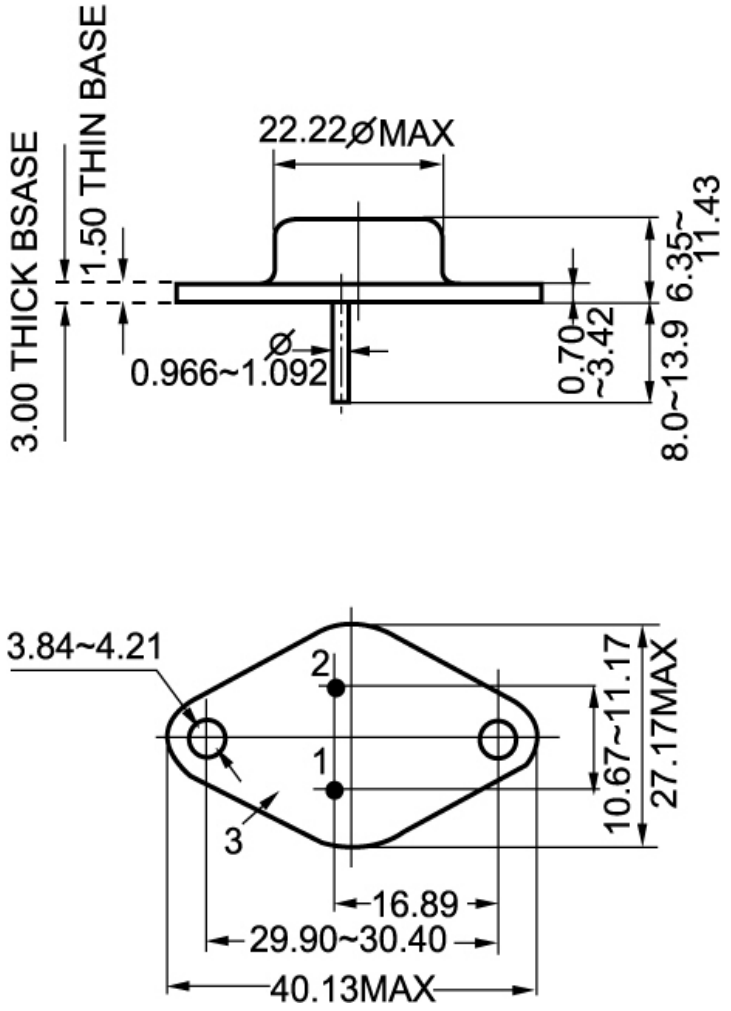


Fig.2 outline dimensions