Silicon PNP Power Transistors 2N6312 2N6313 2N6314

DESCRIPTION

·With TO-66 package
·Low collector saturation voltage
·Low leakage current

APPLICATIONS

·Designed for general-purpose power amplifier and switching applications

PINNING

PIN	DESCRIPTION
1	Base
2	Emitter
3	Collector

Fig.1 simplified outline (TO-66) and symbol

Absolute maximum ratings(Ta=□)

SYMBOL	PARAMETER		CONDITIONS	VALUE	UNIT
V_{CBO}	Collector-base voltage	2N6312	Open emitter	-40	V
		2N6313		-60	
		2N6314		-80	
V_{CEO}	Collector-emitter voltage	2N6312	Open base	-40	V
		2N6313		-60	
		2N6314		-80	
V_{EBO}	Emitter-base voltage		Open collector	-5	V
I_C	Collector current			-5	A
I_{CM}	Collector current-peak			-10	A
I_B	Base current			-2	A
P_D	Total Power Dissipation		T_C=25□	75	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	2.32	□/W

CHARACTERISTICS

Tj=25□ unless otherwise specified

SYMBOL	PARAMETER		CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{CEO(SUS)}$	Collector-emitter sustaining voltage	2N6312	I_C=-0.1A ;I_B=0	-40			V
		2N6313		-60			
		2N6314		-80			
$V_{CEsat-1}$	Collector-emitter saturation voltage		I_C=-1.5A; I_B=-0.15A			-0.7	V
$V_{CEsat-2}$	Collector-emitter saturation voltage		I_C=-3A; I_B=-0.3A			-2.0	V
$V_{CEsat-3}$	Collector-emitter saturation voltage		I_C=-5A; I_B=-1.25A			-4.0	V
V_{BE}	Base-emitter on voltage		I_C=-1.5A ; V_{CE}=-2V			-1.4	V
I_{CEO}	Collector cut-off current	2N6312	V_{CE}=-30V; I_B=0			-1.0	mA
		2N6313	V_{CE}=-50V; I_B=0				
		2N6314	V_{CE}=-70V; I_B=0				
I_{CBO}	Collector cut-off current	2N6312	V_{CB}=-40V; I_E=0			-50	μA
		2N6313	V_{CB}=-60V; I_E=0				
		2N6314	V_{CB}=-80V; I_E=0				
I_{CEX}	Collector cut-off current		V_{CE}=Rated V_{CE}; $V_{BE(off)}$=1.5V T_C=125□			-0.1 -1.0	mA
I_{EBO}	Emitter cut-off current		V_{EB}=-5V; I_C=0			-0.5	mA
h_{FE-1}	DC current gain		I_C=-0.5A ; V_{CE}=-2V	40			
h_{FE-2}	DC current gain		I_C=-1.5A ; V_{CE}=-2V	25		100	
h_{FE-3}	DC current gain		I_C=-3A ; V_{CE}=-2V	10			
h_{FE-4}	DC current gain		I_C=-5A ; V_{CE}=-4V	4			
C_{OB}	Output capacitance		I_E=0 ; V_{CB}=-10V;f=1MHz			300	pF
f_T	Transition frequency		I_C=-0.5A;V_{CE}=-10V;f=1.0MHz	4			MHz

PACKAGE OUTLINE

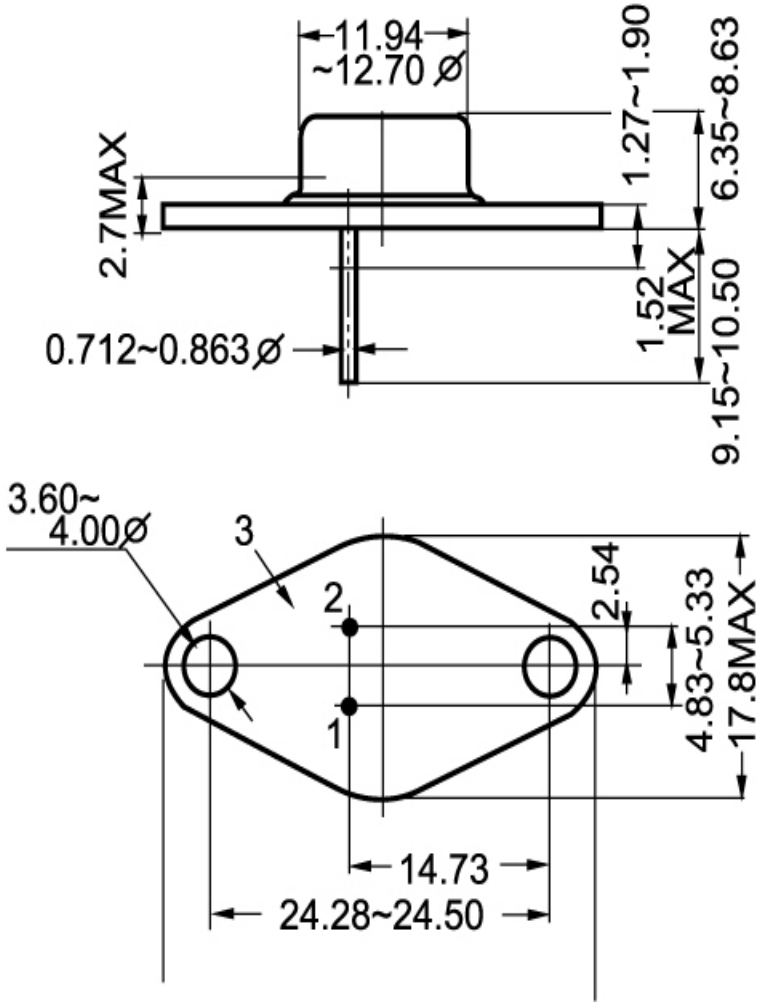

Fig.2 outline dimensions