Silicon NPN Power Transistors 2N5758 2N5759 2N5760

DESCRIPTION

·With TO-3 package
·Low collector saturation voltage
·Excellent safe operating area

APPLICATIONS

·For use in high power audio amplifier applications and high voltage switching regulator circuits

PINNING

PIN	DESCRIPTION
1	Base
2	Emitter
3	Collector



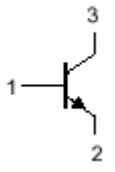


Fig.1 simplified outline (TO-3) and symbol

Absolute maximum ratings(Ta=□)

SYMBOL	PARAMETER		CONDITIONS	VALUE	UNIT
V_{CBO}	Collector-base voltage	2N5758	Open emitter	100	V
		2N5759		120	
		2N5760		140	
V_{CEO}	Collector-emitter voltage	2N5758	Open base	100	V
		2N5759		120	
		2N5760		140	
V_{EBO}	Emitter-base voltage		Open collector	7	V
I_C	Collector current			6	A
I_{CM}	Collector current-peak			10	A
I_B	Base current			4	A
P_D	Total Power Dissipation		T_C=25□	150	W
T_j	Junction temperature			150	□
T_{stg}	Storage temperature			-65~200	□

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	VALUE	UNIT
$R_{th\ j\text{-}c}$	Thermal resistance junction to case	1.17	□/W

CHARACTERISTICS

Tj=25□ unless otherwise specified

SYMBOL	PARAMETER		CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{CEO(SUS)}$	Collector-emitter sustaining voltage	2N5758	I_C=0.2A ;I_B=0	100			V
		2N5759		120			
		2N5760		140			
$V_{CEsat-1}$	Collector-emitter saturation voltage		I_C=3A; I_B=0.3A			1.0	V
$V_{CEsat-2}$	Collector-emitter saturation voltage		I_C=6A ;I_B=1.2A			2.0	V
V_{BE}	Base-emitter on voltage		I_C=3A ; V_{CE}=2V			1.5	V
I_{CEO}	Collector cut-off current	2N5758	V_{CE}=50V; I_B=0			1.0	mA
		2N5759	V_{CE}=60V; I_B=0				
		2N5760	V_{CE}=70V; I_B=0				
I_{CEX}	Collector cut-off current		V_{CE}=ratedV_{CB}; $V_{BE(off)}$=1.5V T_C=150□			1.0 5.0	mA
I_{CBO}	Collector cut-off current		V_{CE}=rated$V_{CB;}$ I_B=0			1.0	mA
I_{EBO}	Emitter cut-off current		V_{EB}=7V; I_C=0			1.0	mA
h_{FE-1}	DC current gain	2N5758	I_C=3A ; V_{CE}=2V	25		100	
		2N5759		20		80	
		2N5760		15		60	
h_{FE-2}	DC current gain		I_C=6A ; V_{CE}=2V	5.0			
C_{OB}	Output capacitance		I_E=0 ; V_{CB}=10V;f=0.1MHz			300	pF
f_T	Transition frequency		I_C=0.5A ; V_{CE}=20V	1.0			MHz

PACKAGE OUTLINE

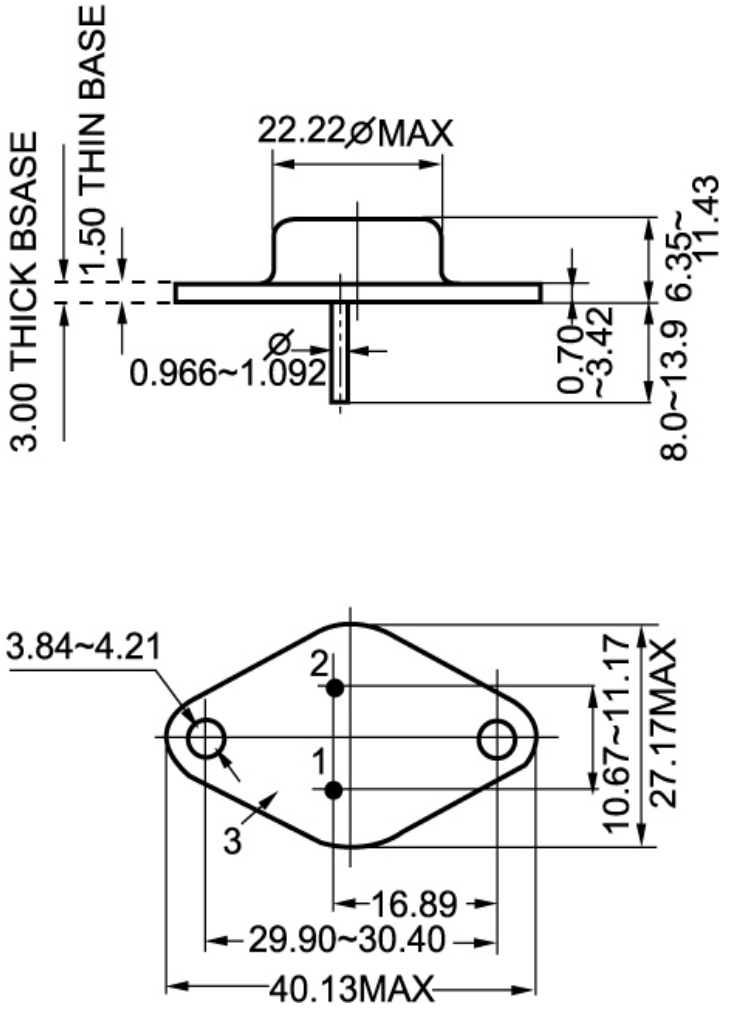


Fig.2 outline dimensions (unindicated tolerance:±0.10mm)