Silicon NPN Power Transistors 2N3773

DESCRIPTION

- With TO-3 package
- Complement to type 2N6609
- High DC current gain
- Low saturation voltage
- High safe operating area

APPLICATIONS

- Designed for high power audio, disk head positioners and other linear applications. These devices can also be used in power switching circuits such as relay or solenoid drivers, dc to dc converters or inverters.

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	160	V
V_{CEO}	Collector-emitter voltage	Open base	140	V
V_{EBO}	Emitter-base voltage	Open collector	7	V
I_C	Collector current		16	A
I_{CM}	Collector current-peak		30	A
I_B	Base current		4	A
I_{BM}	Base current-peak		15	A
P_D	Total Power Dissipation Derate above 25℃	T_C=25℃	150 0.855	W W/℃
T_j	Junction temperature		150	℃
T_{stg}	Storage temperature		-65~200	℃

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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	140			V
$V_{CEsat-1}$	Collector-emitter saturation voltage	I_C=8A; I_B=0.8A			1.4	V
$V_{CEsat-2}$	Collector-emitter saturation voltage	I_C=16A ;I_B=3.2A			4.0	V
V_{BE}	Base-emitter on voltage	I_C=8A ; V_{CE}=4V			2.2	V
I_{CEO}	Collector cut-off current	V_{CE}=140V; I_B=0			2.0	mA
I_{CEX}	Collector cut-off current	V_{CE}=140V; $V_{BE(off)}$=1.5V T_C=150℃			2.0 10.0	mA
I_{EBO}	Emitter cut-off current	V_{EB}=7V; I_C=0			5.0	mA
h_{FE-1}	DC current gain	I_C=8A ; V_{CE}=4V	15		60	
h_{FE-2}	DC current gain	I_C=16A ; V_{CE}=4V	5			
$I_{s/b}$	Second breakdown collector current With base forward biased	V_{CE}=100Vdc,t=1.0s, Nonrepetitive	1.5			A

THERMAL CHARACTERISTICS

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

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PACKAGE OUTLINE

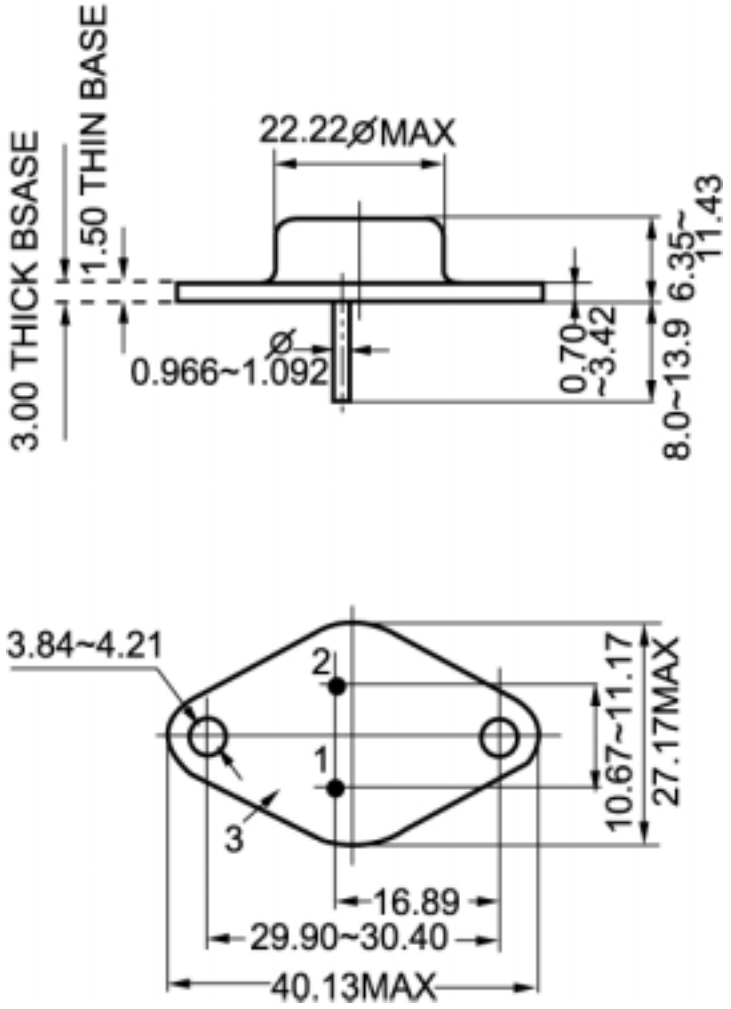

Fig.2 outline dimensions (unindicated tolerance:±0.10mm)