

Silicon NPN Power Transistors

2N6383 2N6384 2N6385

DESCRIPTION

- With TO-3 package
- Complement to type 2N6648/6649/6650
- DARLINGTON
- High DC current gain

APPLICATIONS

- Designed for low and medium frequency power application such as power switching audio amplifier ,hammer drivers and shunt and series regulators

PINNING

PIN	DESCRIPTION
1	Base
2	Emitter
3	Collector

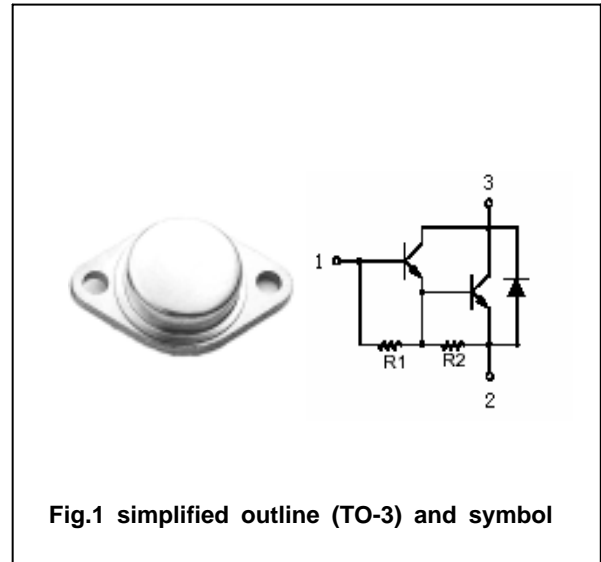


Fig.1 simplified outline (TO-3) and symbol

Absolute maximum ratings(Ta=)

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
V _{CBO}	Collector-base voltage	2N6383	40	V
		2N6384	60	
		2N6385	80	
V _{CEO}	Collector-emitter voltage	2N6383	40	V
		2N6384	60	
		2N6385	80	
V _{EBO}	Emitter-base voltage	Open collector	5	V
I _C	Collector current		10	A
I _{CM}	Collector current-peak		15	A
I _B	Base current		0.25	A
P _D	Total Power Dissipation	T _C =25	100	W
T _j	Junction temperature		200	
T _{stg}	Storage temperature		-65~200	

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	VALUE	UNIT
R _{th j-c}	Thermal resistance junction to case	1.75	/W

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CHARACTERISTICS

T_j=25 unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V _{CEO(SUS)}	Collector-emitter sustaining voltage	2N6383	I _C =0.2A ; I _B =0			V
		2N6384				
		2N6385				
V _{CEsat-1}	Collector-emitter saturation voltage	I _C =5A ; I _B =10mA			2.0	V
V _{CEsat-2}	Collector-emitter saturation voltage	I _C =10A ; I _B =100mA			3.0	V
V _{BE-1}	Base-emitter on voltage	I _C =5A ; V _{CE} =3V			2.8	V
V _{BE-2}	Base-emitter on voltage	I _C =10A ; V _{CE} =3V			4.5	V
I _{CEO}	Collector cut-off current	2N6383			1.0	mA
		2N6384				
		2N6385				
I _{CEX}	Collector cut-off current	2N6383	V _{CE} =40V ; V _{BE} =-1.5V T _C =125		0.3 3.0	mA
		2N6384				
		2N6385				
I _{EBO}	Emitter cut-off current	V _{EB} =5V ; I _C =0			10	mA
h _{FE-1}	DC current gain	I _C =5A ; V _{CE} =3V	1000		20000	
h _{FE-2}	DC current gain	I _C =10A ; V _{CE} =3V	100			
C _{OB}	Output capacitance	I _E =0 ; V _{CB} =10V ; f=1MHz			200	pF

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PACKAGE OUTLINE

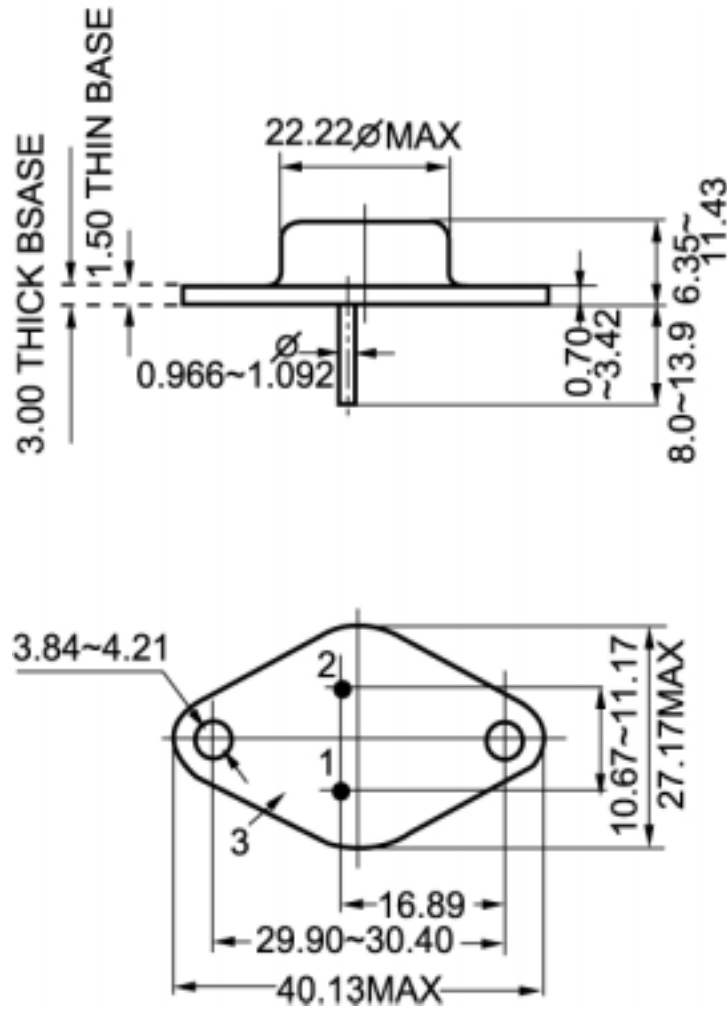


Fig.2 outline dimensions (unindicated tolerance: $\pm 0.10\text{mm}$)