

Silicon NPN Power Transistors

2N6058/2N6059

DESCRIPTION

- With TO-3 package
- High gain
- High current
- High dissipation
- Complement to type 2N5883/2N5884

APPLICATIONS

- They are intended for use in power linear and low frequency switching applications

PINNING

PIN	DESCRIPTION
1	Base
2	Emitter
3	Collector

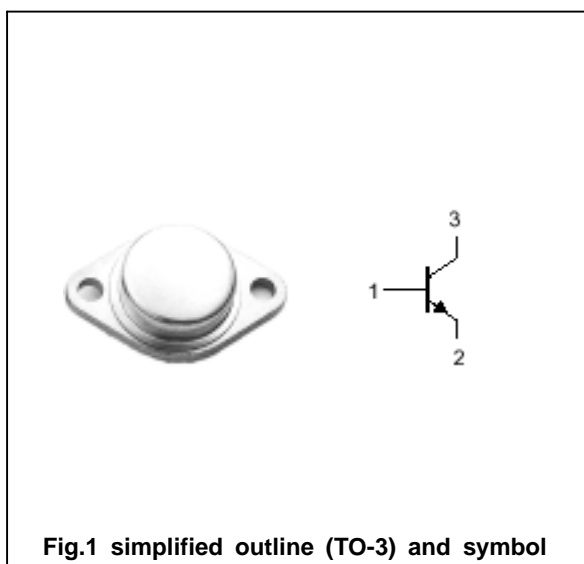


Fig.1 simplified outline (TO-3) and symbol

Absolute maximum ratings($T_a =$)

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
V_{CBO}	Collector-base voltage	2N6058	80	V
		2N6059	100	
V_{CEO}	Collector-emitter voltage	2N6058	80	V
		2N6059	100	
V_{EBO}	Emitter-base voltage	Open collector	5	V
I_C	Collector current		12	A
I_{CM}	Collector current-peak		20	A
I_B	Base current		0.2	mA
P_D	Total Power Dissipation	$T_c=25$	150	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	1.17	/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	2N6058	I _C =0.1A ; I _B =0	80			V
		2N6059		100			V
V _{CEsat-1}	Collector-emitter saturation voltage	I _C =6A I _B =24mA			2	V	
V _{CEsat-2}	Collector-emitter saturation voltage	I _C =12A I _B =120mA			3	V	
V _{BEsat}	Collector-emitter saturation voltage	I _C =12A I _B =120mA			4	V	
V _{BE}	Base-emitter on voltage	I _C =6A ; V _{CE} =3V			2.8	V	
I _{CEO}	Collector cut-off current	2N6058			1	mA	
		2N6059					V _{CE} =50V; I _B =0
I _{EBO}	Emitter cut-off current	V _{EB} =5V; I _C =0			2	mA	
h _{FE-1}	DC current gain	I _C =6A ; V _{CE} =3V	750				
h _{FE-2}	DC current gain	I _C =12A ; V _{CE} =3V	100				
f _T	Transistion frequency	I _C =5A ; V _{CE} =3V; f=1MHz	4			MHz	

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PACKAGE OUTLINE

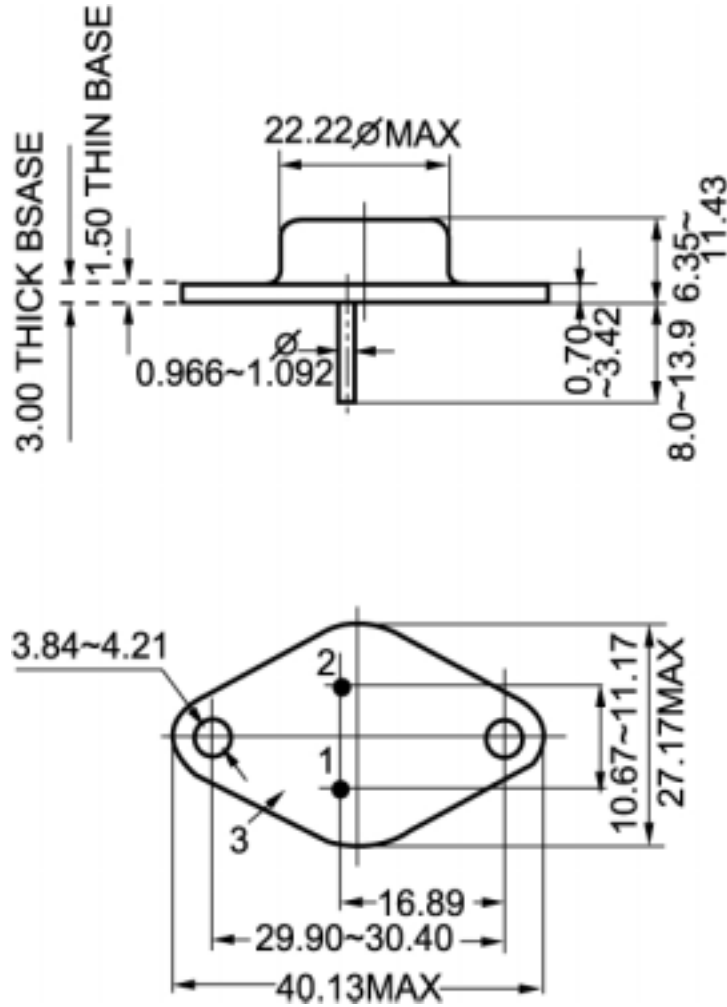


Fig.2 outline dimensions (unindicated tolerance: ± 0.10 mm)