

Inchange Semiconductor

Product Specification

Silicon NPN Power Transistors

2N6058 2N6059

DESCRIPTION

- With TO-3 package
- High current ;high dissipation
- DARLINGTON
- 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

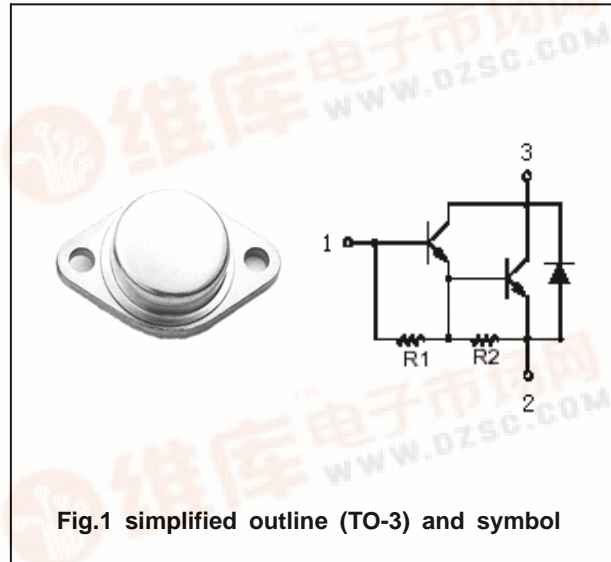


Fig.1 simplified outline (TO-3) and symbol

Absolute maximum ratings(Ta=°C)

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
V _{CBO}	Collector-base voltage	2N6058	80	V
		2N6059		
V _{CEO}	Collector-emitter voltage	2N6058	80	V
		2N6059		
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°C	150	W
T _j	Junction temperature		200	°C
T _{stg}	Storage temperature		-65~200	°C

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	VALUE	UNIT
R _{th j-c}	Thermal resistance junction to case	1.17	°C/W

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CHARACTERISTICS

T_j=25°C unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V _{CE0(SUS)}	Collector-emitter sustaining voltage	2N6058	I _C =0.1A ; I _B =0	80		V
		2N6059		100		
V _{CEsat-1}	Collector-emitter saturation voltage	I _C =6A ; I _B =24mA			2.0	V
V _{CEsat-2}	Collector-emitter saturation voltage	I _C =12A ; I _B =120mA			3.0	V
V _{BEsat}	Base-emitter saturation voltage	I _C =12A ; I _B =120mA			4.0	V
V _{BE}	Base-emitter on voltage	I _C =6A ; V _{CE} =3V			2.8	V
I _{CEO}	Collector cut-off current	2N6058			1.0	mA
		2N6059				
I _{EBO}	Emitter cut-off current	V _{EB} =5V ; I _C =0			2.0	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

PACKAGE OUTLINE

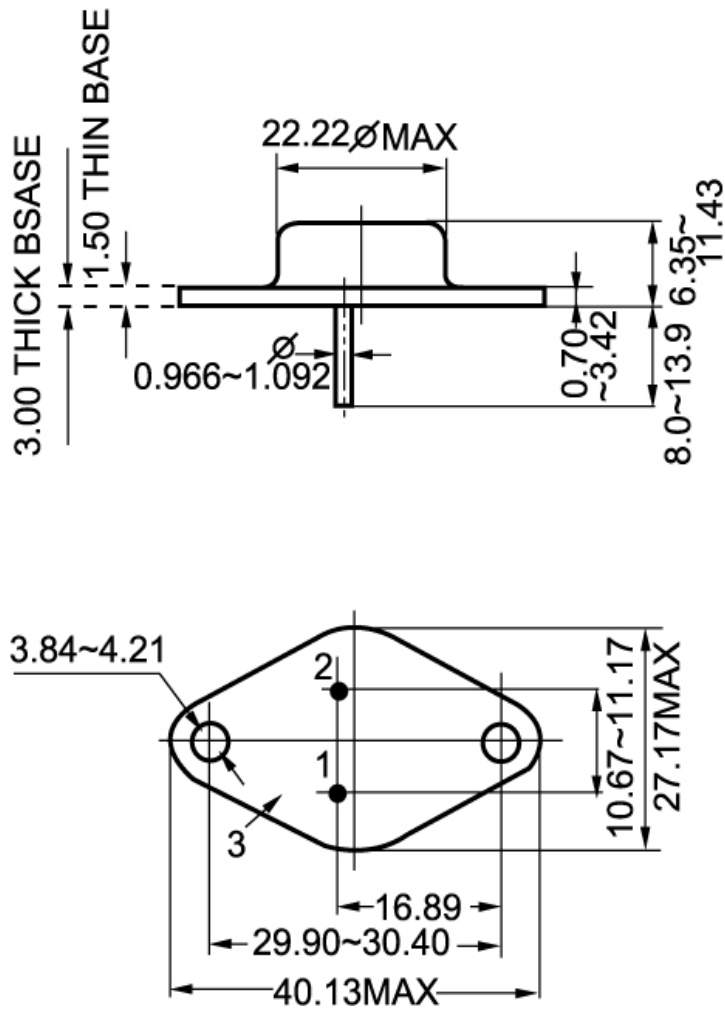


Fig.2 outline dimensions (unindicated tolerance: $\pm 0.10\text{mm}$)