

Silicon PNP Power Transistors

2N5875 2N5876

DESCRIPTION

- With TO-3 package
- Low collector saturation voltage
- Complement to type 2N5877 2N5878

APPLICATIONS

- For general-purpose power amplifier and switching applications

PINNING

PIN	DESCRIPTION
1	Base
2	Emitter
3	Collector

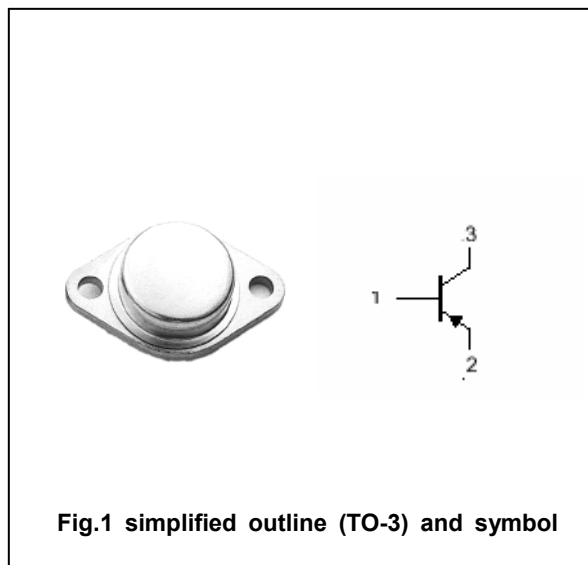


Fig.1 simplified outline (TO-3) and symbol

Absolute maximum ratings($T_a = \square$)

SYMBOL	PARAMETER		CONDITIONS	VALUE	UNIT
V_{CBO}	Collector-base voltage	2N5875	Open emitter	-60	V
		2N5876		-80	
V_{CEO}	Collector-emitter voltage	2N5875	Open base	-60	V
		2N5876		-80	
V_{EBO}	Emitter-base voltage		Open collector	-5	V
I_C	Collector current			-10	A
I_{CM}	Collector current-peak			-20	A
I_B	Base current			-4	A
P_D	Total Power Dissipation		$T_C = 25\square$	150	W
T_j	Junction temperature			200	$\square$
T_{stg}	Storage temperature			-65~200	$\square$

THERMAL CHARACTERISTICS

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

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CHARACTERISTICS

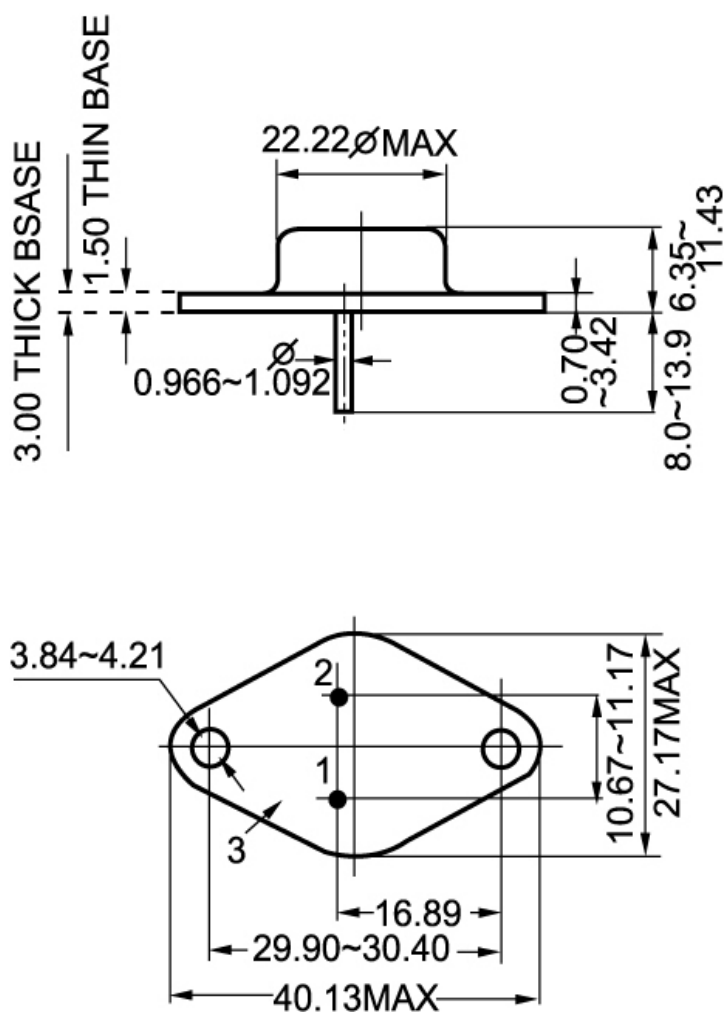
T_j=25℃ unless otherwise specified

SYMBOL	PARAMETER		CONDITIONS	MIN	TYP.	MAX	UNIT
V _{CEO(SUS)}	Collector-emitter sustaining voltage	2N5875	I _C =-0.2A ; I _B =0	-60			V
		2N5876		-80			
V _{CEsat-1}	Collector-emitter saturation voltage		I _C =-5A; I _B =-0.5A			-1.0	V
V _{CEsat-2}	Collector-emitter saturation voltage		I _C =-10A; I _B =-2.5A			-3.0	V
V _{BEsat}	Base-emitter saturation voltage		I _C =-10A; I _B =-2.5A			-2.5	V
V _{BE}	Base-emitter on voltage		I _C =-4A ; V _{CE} =-4V			-1.5	V
I _{CBO}	Collector cut-off current		V _{CB} =ratedV _{CBO} ; I _B =0			-0.5	mA
I _{CEO}	Collector cut-off current	2N5875	V _{CE} =-30V; I _B =0			-1.0	mA
		2N5876	V _{CE} =-40V; I _B =0				
I _{CEX}	Collector cut-off current		V _{CE} =ratedV _{CE} ; V _{BE} =1.5V T _C =150℃			-0.5 -5.0	mA
I _{EBO}	Emitter cut-off current		V _{EB} =-5V; I _C =0			-1.0	mA
h _{FE-1}	DC current gain		I _C =-1A ; V _{CE} =-4V	35			
h _{FE-2}	DC current gain		I _C =-4A ; V _{CE} =-4V	20		100	
h _{FE-3}	DC current gain		I _C =-10A ; V _{CE} =-4V	4			
f _T	Transistion frequency		I _C =-0.5A ; V _{CE} =-10V; f=1MHz	4			MHz

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PACKAGE OUTLINE

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