

Silicon PNP Power Transistors

2N6296 2N6297

DESCRIPTION

- With TO-66 package
- DARLINGTON
- Complement to type 2N6294/6295

APPLICATIONS

- For high gain amplifier and medium speed switching applications

PINNING (See Fig.2)

PIN	DESCRIPTION
1	Base
2	Emitter
3	Collector

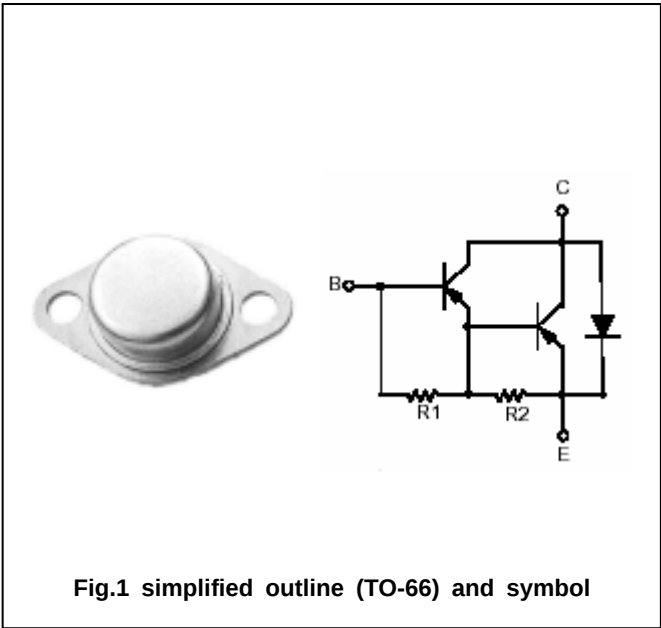


Fig.1 simplified outline (TO-66) and symbol

Absolute maximum ratings(Ta=25)

SYMBOL	PARAMETER		CONDITIONS	VALUE	UNIT
V _{CBO}	Collector-base voltage	2N6296	Open emitter	-60	V
		2N6297		-80	
V _{CEO}	Collector-emitter voltage	2N6296	Open base	-60	V
		2N6298		-80	
V _{EBO}	Emitter-base voltage		Open collector	-5	V
I _C	Collector current			-4	A
I _{CM}	Collector current-Peak			-8	A
I _B	Base current			-80	mA
P _T	Total power dissipation		T _C =25	50	W
T _j	Junction temperature			150	
T _{stg}	Storage temperature			-65~200	

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
R _{th j-c}	Thermal resistance from junction to case	3.5	/W

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CHARACTERISTICS

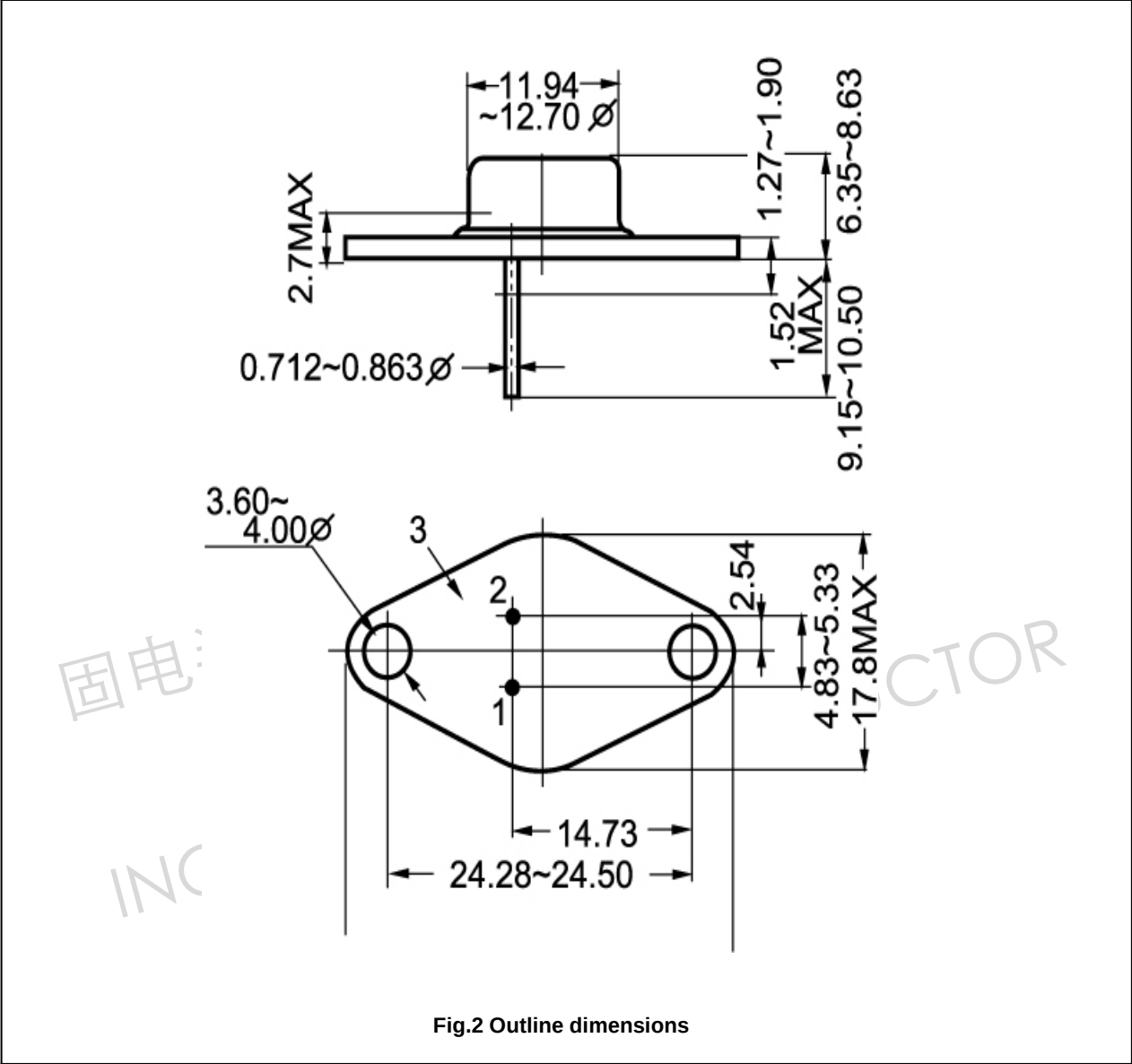
T_j=25 unless otherwise specified

SYMBOL	PARAMETER		CONDITIONS	MIN	TYP.	MAX	UNIT
V _{(BR)CEO}	Collector-emitter breakdown voltage	2N6296	I _C =-50mA ; I _B =0	-60			V
		2N6297		-80			
V _{CEsat-1}	Collector-emitter saturation voltage		I _C =-2A ; I _B =-8mA			-2.0	V
V _{CEsat-2}	Collector-emitter saturation voltage		I _C =-4A ; I _B =-40mA			-3.0	V
V _{BEsat}	Base-emitter saturation voltage		I _C =-4A ; I _B =-40mA			-4.0	V
V _{BE}	Base -emitter on voltage		I _C =-2A ; V _{CE} =-3V			-2.8	V
I _{CEX}	Collector cut-off current		V _{CE} =RatedV _{CE} ; V _{BE(off)} =1.5V T _C =150			-0.5 -5.0	mA
I _{CEO}	Collector cut-off current		V _{CE} =1/2Rated V _{CEO} ; I _B =0			-0.5	mA
I _{EBO}	Emitter cut-off current		V _{EB} =-5V; I _C =0			-2.0	mA
h _{FE-1}	DC current gain		I _C =-2A ; V _{CE} =-3V	750		18000	
h _{FE-2}	DC current gain		I _C =-4A ; V _{CE} =-3V	100			
f _T	Transition frequency		I _C =-1.5A ; V _{CE} =-3V; f=1.0MHz	4.0			MHz
C _{OB}	Output capacitance		I _E =0 ; V _{CB} =-10V; f=0.1MHz			200	pF

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PACKAGE OUTLINE



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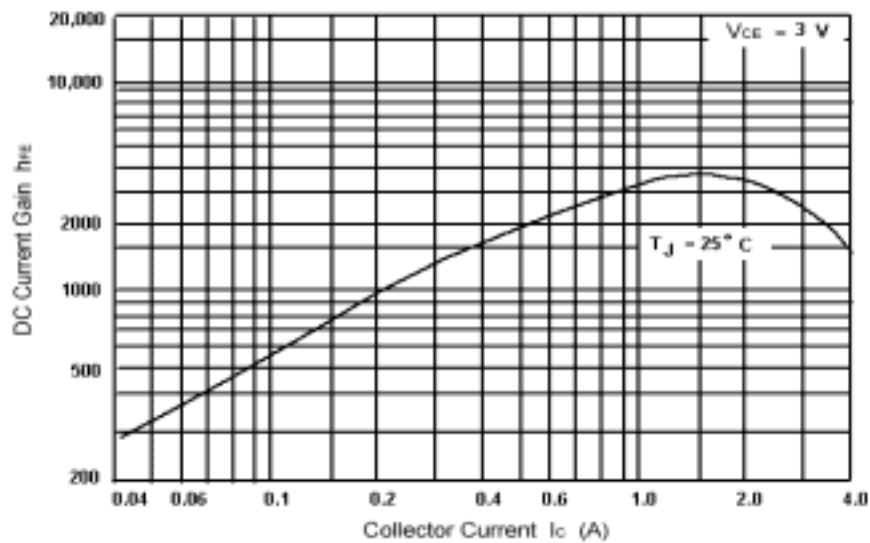


Fig.3 DC current Gain

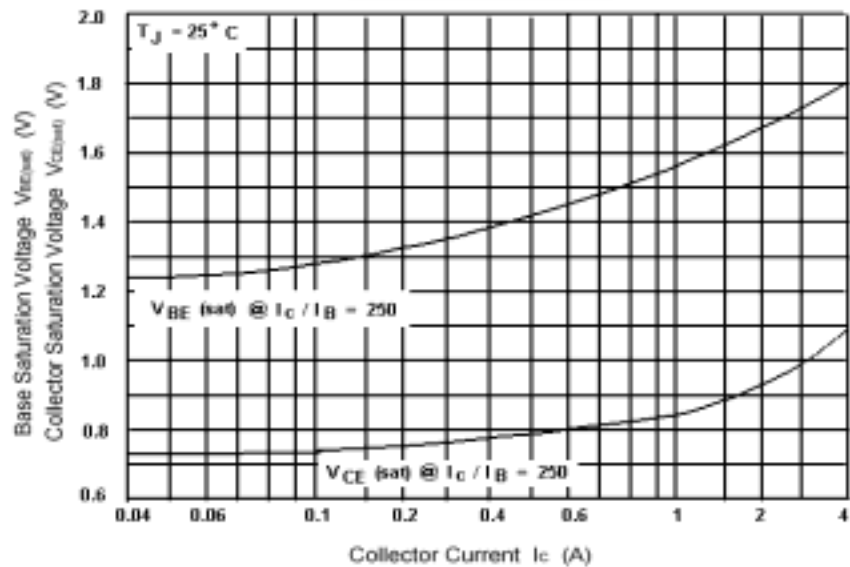


Fig.4 Base-Emitter Saturation Voltage
Collector-Emitter Saturation Voltage

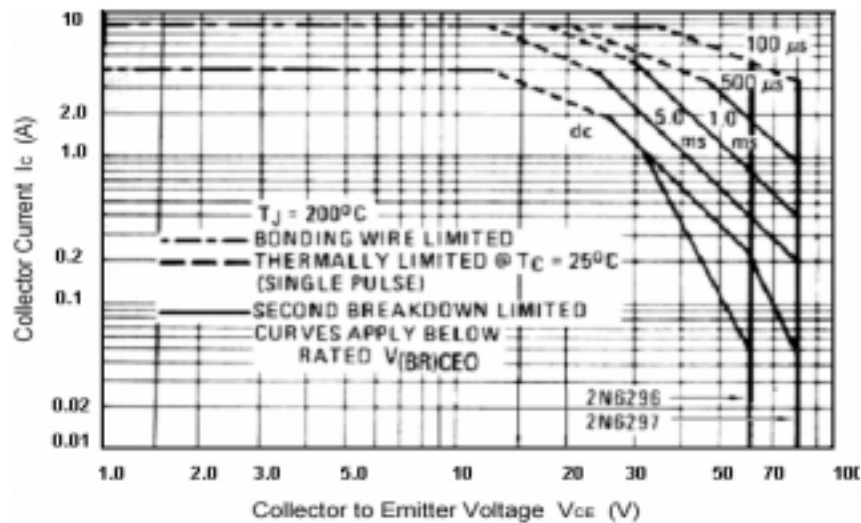


Fig.5 Safe Operating Area