

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

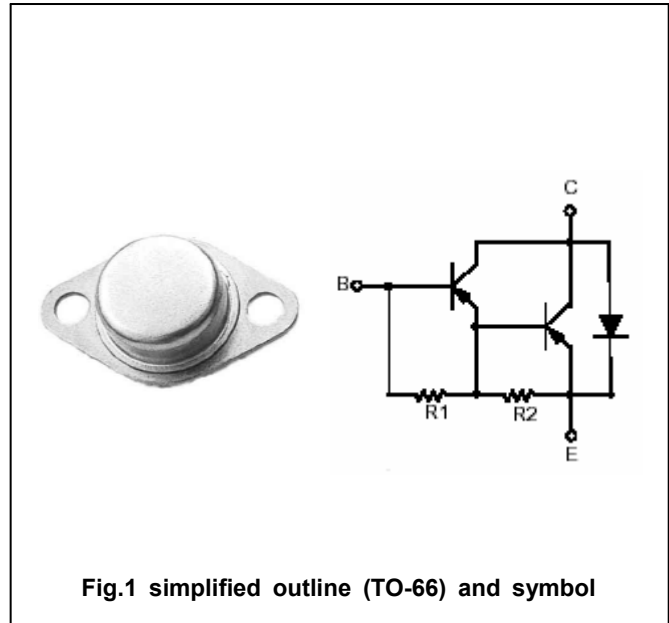


Fig.1 simplified outline (TO-66) and symbol

Absolute maximum ratings($T_a=25^\circ$)

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
V_{CBO}	Collector-base voltage	2N6296	-60	V
		2N6297	-80	
V_{CEO}	Collector-emitter voltage	2N6296	-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	$T_C=25^\circ$	50	W
T_j	Junction temperature		150	$^\circ$
T_{stg}	Storage temperature		-65~200	$^\circ$

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j-c}$	Thermal resistance from junction to case	3.5	$^\circ/W$

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CHARACTERISTICS

T_j=25 °C unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V _{(BR)CEO}	Collector-emitter breakdown voltage	I _C =-50mA ; I _B =0	-60			V
			-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} =Rated V _{CE} ; V _{BE(off)} =1.5V T _C =150 °C			-0.5 -5.0	mA
I _{CEO}	Collector cut-off current	V _{CE} =1/2Rated V _{CE0} ; 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



Fig.2 Outline dimensions

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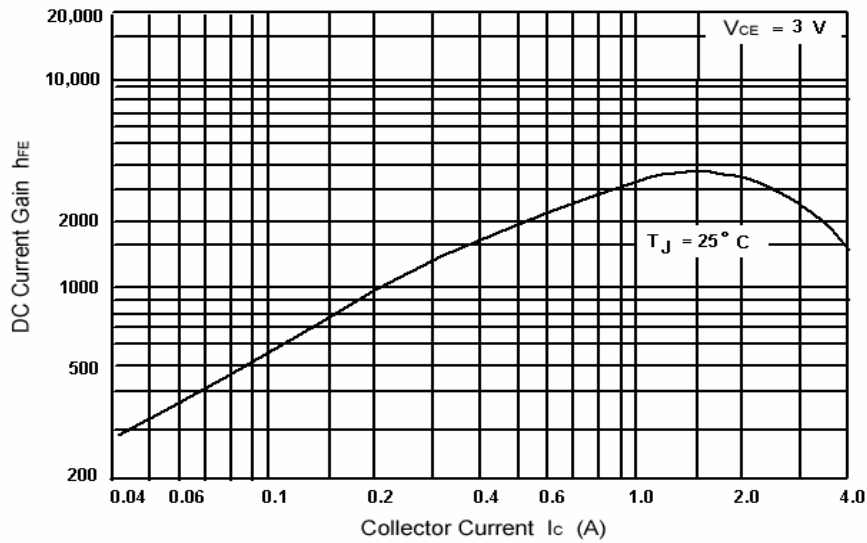


Fig.3 DC current Gain

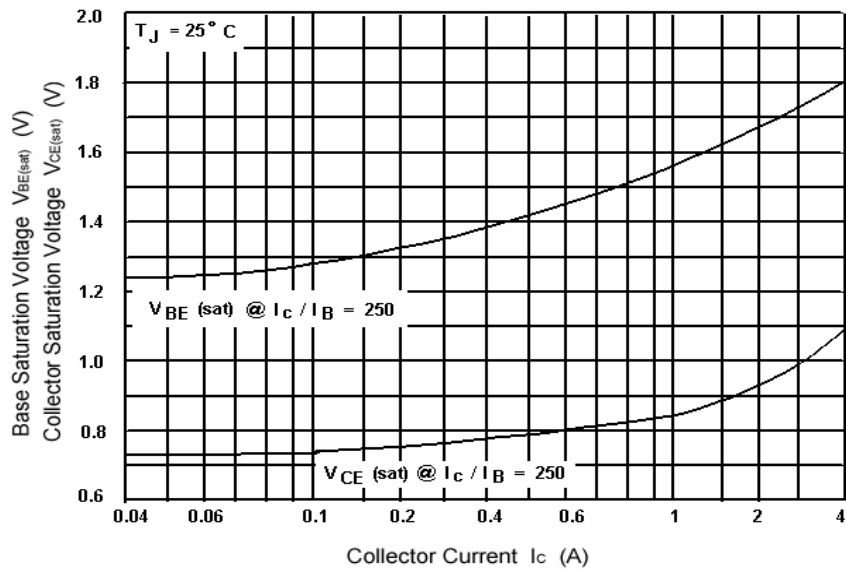


Fig.4 Base-Emitter Saturation Voltage
Collector-Emitter Saturation Voltage

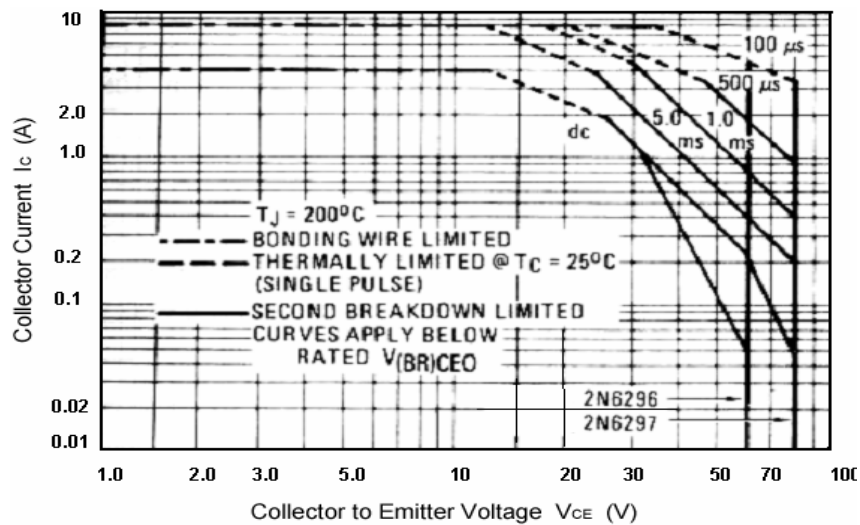


Fig.5 Safe Operating Area