

Silicon PNP Power Transistors

2N6312 2N6313 2N6314

DESCRIPTION

- With TO-66 package
- Low collector saturation voltage
- Low leakage current

APPLICATIONS

- Designed for general-purpose power amplifier and switching applications

PINNING

PIN	DESCRIPTION
1	Base
2	Emitter
3	Collector

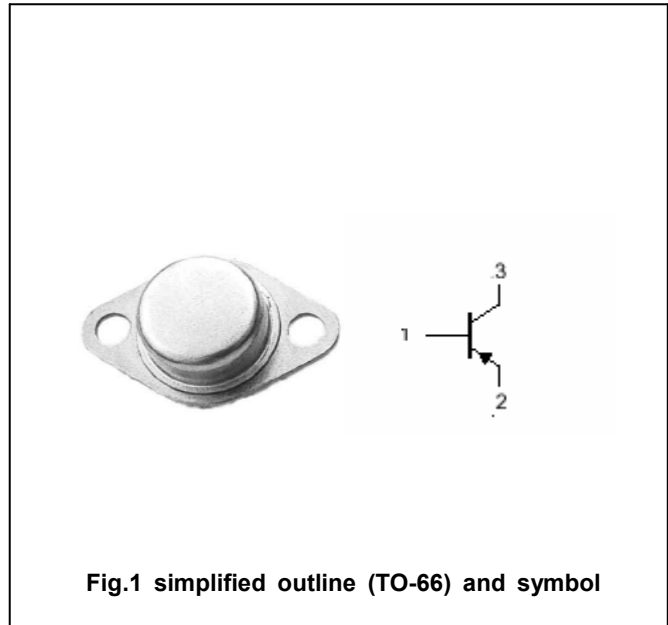


Fig.1 simplified outline (TO-66) and symbol

Absolute maximum ratings($T_a = \square$)

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
V_{CBO}	Collector-base voltage	2N6312	-40	V
		2N6313	-60	
		2N6314	-80	
V_{CEO}	Collector-emitter voltage	2N6312	-40	V
		2N6313	-60	
		2N6314	-80	
V_{EBO}	Emitter-base voltage	Open collector	-5	V
I_C	Collector current		-5	A
I_{CM}	Collector current-peak		-10	A
I_B	Base current		-2	A
P_D	Total Power Dissipation	$T_C = 25 \square$	75	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	2.32	\square/W

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CHARACTERISTICS

T_j=25 °C unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V _{CE(SUS)}	Collector-emitter sustaining voltage	2N6312	-40			V
		2N6313	-60			
		2N6314	-80			
V _{CEsat-1}	Collector-emitter saturation voltage	I _C =-1.5A; I _B =-0.15A			-0.7	V
V _{CEsat-2}	Collector-emitter saturation voltage	I _C =-3A; I _B =-0.3A			-2.0	V
V _{CEsat-3}	Collector-emitter saturation voltage	I _C =-5A; I _B =-1.25A			-4.0	V
V _{BE}	Base-emitter on voltage	I _C =-1.5A; V _{CE} =-2V			-1.4	V
I _{CEO}	Collector cut-off current	2N6312				mA
		2N6313			-1.0	
		2N6314				
I _{CBO}	Collector cut-off current	2N6312				μA
		2N6313			-50	
		2N6314				
I _{CEx}	Collector cut-off current	V _{CE} =Rated V _{CE} ; V _{BE(off)} =1.5V T _C =125 °C			-0.1 -1.0	mA
I _{EBO}	Emitter cut-off current	V _{EB} =-5V; I _C =0			-0.5	mA
h _{FE-1}	DC current gain	I _C =-0.5A; V _{CE} =-2V	40			
h _{FE-2}	DC current gain	I _C =-1.5A; V _{CE} =-2V	25		100	
h _{FE-3}	DC current gain	I _C =-3A; V _{CE} =-2V	10			
h _{FE-4}	DC current gain	I _C =-5A; V _{CE} =-4V	4			
C _{OB}	Output capacitance	I _E =0; V _{CB} =-10V; f=1MHz			300	pF
f _T	Transition frequency	I _C =-0.5A; V _{CE} =-10V; f=1.0MHz	4			MHz

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PACKAGE OUTLINE



Fig.2 outline dimensions