

Silicon NPN Power Transistors

2SD1296

DESCRIPTION

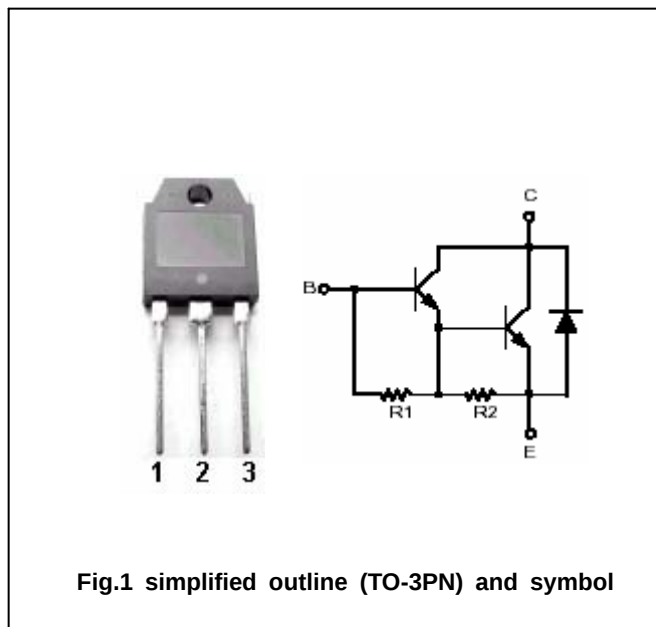
- With TO-3PN package
- High DC current gain
- Low saturation voltage

APPLICATIONS

- For audio frequency power amplifier and low speed high current switching industrial use

PINNING

PIN	DESCRIPTION
1	Base
2	Collector;connected to mounting base
3	Emitter

Absolute maximum ratings ($T_a=25^\circ\text{C}$)

SYMBOL	PARAMETER	CONDITIONS	MAX	UNIT
V_{CBO}	Collector-base voltage	Open emitter	150	V
V_{CEO}	Collector-emitter voltage	Open base	100	V
V_{EBO}	Emitter-base voltage	Open collector	8	V
I_C	Collector current		15	A
I_{CM}	Collector current-peak		30	A
P_T	Total power dissipation	$T_C=25$	100	W
		$T_a=25$	3.0	
T_j	Junction temperature		150	
T_{stg}	Storage temperature		-55~150	

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CHARACTERISTICS

Tj=25 unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{(BR)CEO}$	Collector-emitter breakdown voltage	$I_C=30mA ; I_B=0$	100			V
V_{CEsat}	Collector-emitter saturation voltage	$I_C=15A ; I_B=30mA$			1.5	V
V_{BEsat}	Base-emitter saturation voltage	$I_C=15A ; I_B=30mA$			2.2	V
I_{CBO}	Collector cut-off current	$V_{CB}=100V ; I_E=0$			10	μA
I_{EBO}	Emitter cut-off current	$V_{EB}=5V ; I_C=0$			5	mA
h_{FE}	DC current gain	$I_C=15A ; V_{CE}=2V$	1000		30000	

Switching times

t_{on}	Turn-on time	$I_C=15A ; I_{B1}=-I_{B2}=30mA$ $V_{CC} \approx 60V ; R_L=4\Omega$		1.0		μs
t_{stg}	Storage time			5.0		μs
t_f	Fall time			2.0		μs

◆ h_{FE} Classifications

M	L	K	J
1000-3000	2000-5000	4000-10000	8000-30000

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PACKAGE OUTLINE

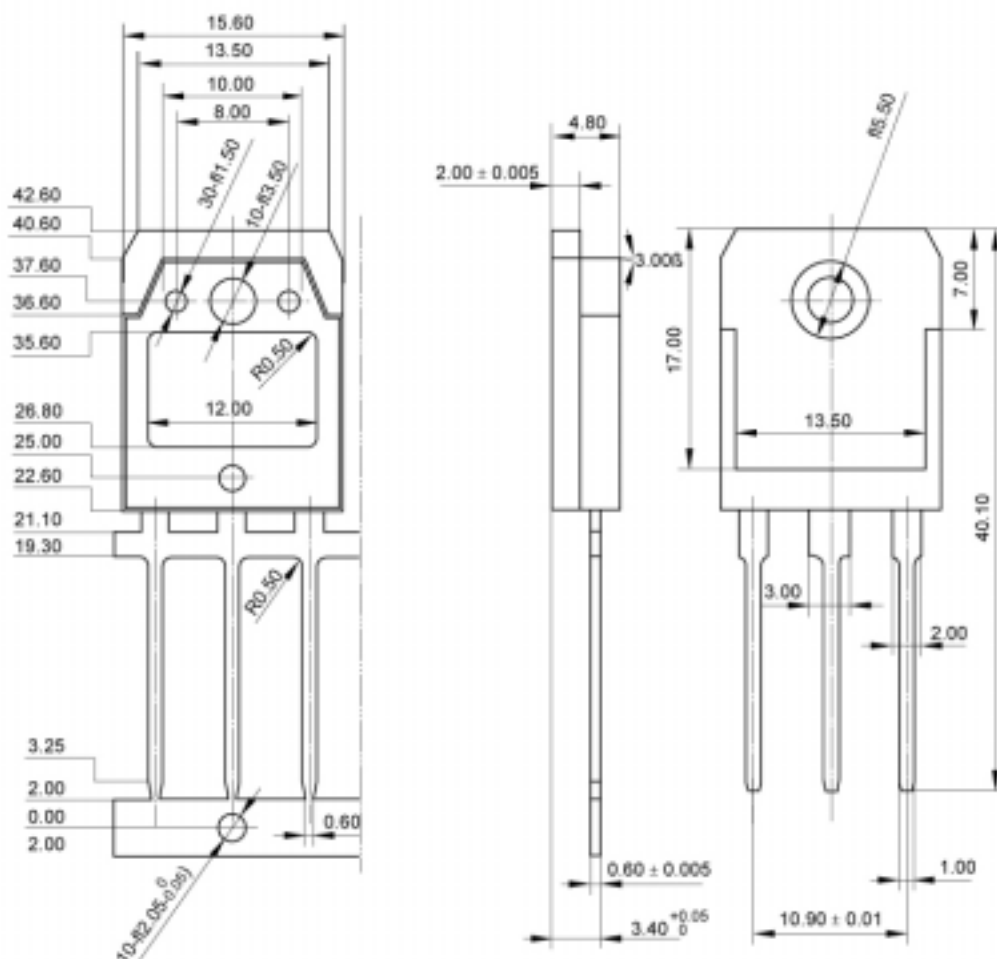


Fig.2 outline dimensions