

SavantIC Semiconductor

Product Specification

Silicon NPN Power Transistors

2SD847

DESCRIPTION

- With TO-3PN package
- High collector current
- Wide area of safe operation
- Complement to type 2SB757

APPLICATIONS

- Audio amplifications
- Serie regulators
- General purpose power amplifiers

PINNING

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

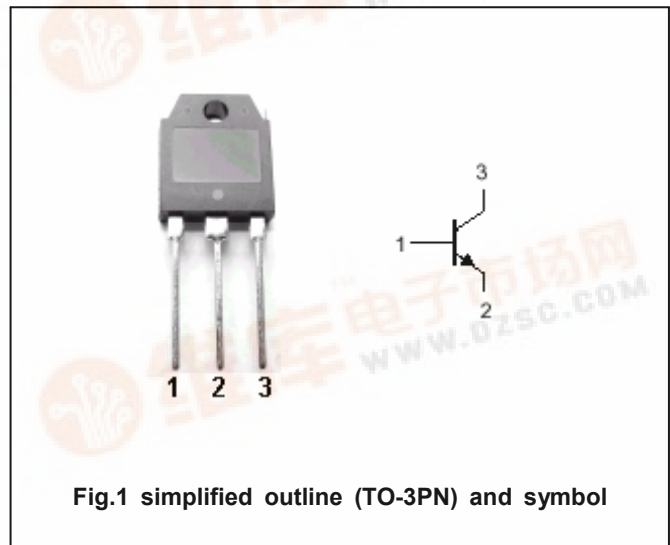


Fig.1 simplified outline (TO-3PN) and symbol

ABSOLUTE MAXIMUM RATINGS(Tc=25℃)

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
V _{CBO}	Collector-base voltage	Open emitter	40	V
V _{CEO}	Collector-emitter voltage	Open base	40	V
V _{EBO}	Emitter-base voltage	Open collector	5	V
I _C	Collector current		15	A
I _B	Base current		5	A
P _C	Collector power dissipation	T _C =25℃	80	W
T _j	Junction temperature		150	℃
T _{stg}	Storage temperature		-55~150	℃

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	VALUE	UNIT
R _{th j-c}	Thermal resistance from junction to case	1.56	℃/W

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CHARACTERISTICS

T_j=25°C unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V _{(BR)CBO}	Collector-base breakdown voltage	I _C =0.1mA; I _E =0	40			V
V _{(BR)CEO}	Collector-emitter breakdown voltage	I _C =10mA; I _B =0	40			V
V _{(BR)EBO}	Emitter-base breakdown voltage	I _E =0.1mA; I _C =0	5			V
V _{CE(sat)}	Collector-emitter saturation voltage	I _C =5A; I _B =0.5A			0.8	V
V _{BE(sat)}	Base-emitter saturation voltage	I _C =5A; I _B =0.5A			1.0	V
I _{CBO}	Collector cut-off current	V _{CB} =40V; I _E =0			10	μA
I _{EBO}	Emitter cut-off current	V _{EB} =5V; I _C =0			100	μA
h _{FE}	DC current gain	I _C =5A; V _{CE} =2V	40		240	

Switching times

t _{on}	Turn-on time	I _C =15A; I _{B1} =-I _{B2} =1.5A R _L =2Ω; P _W =20μs, Duty≤2%			1.0	μs
t _s	Storage time				2.0	μs
t _f	Fall time				1.0	μs

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PACKAGE OUTLINE

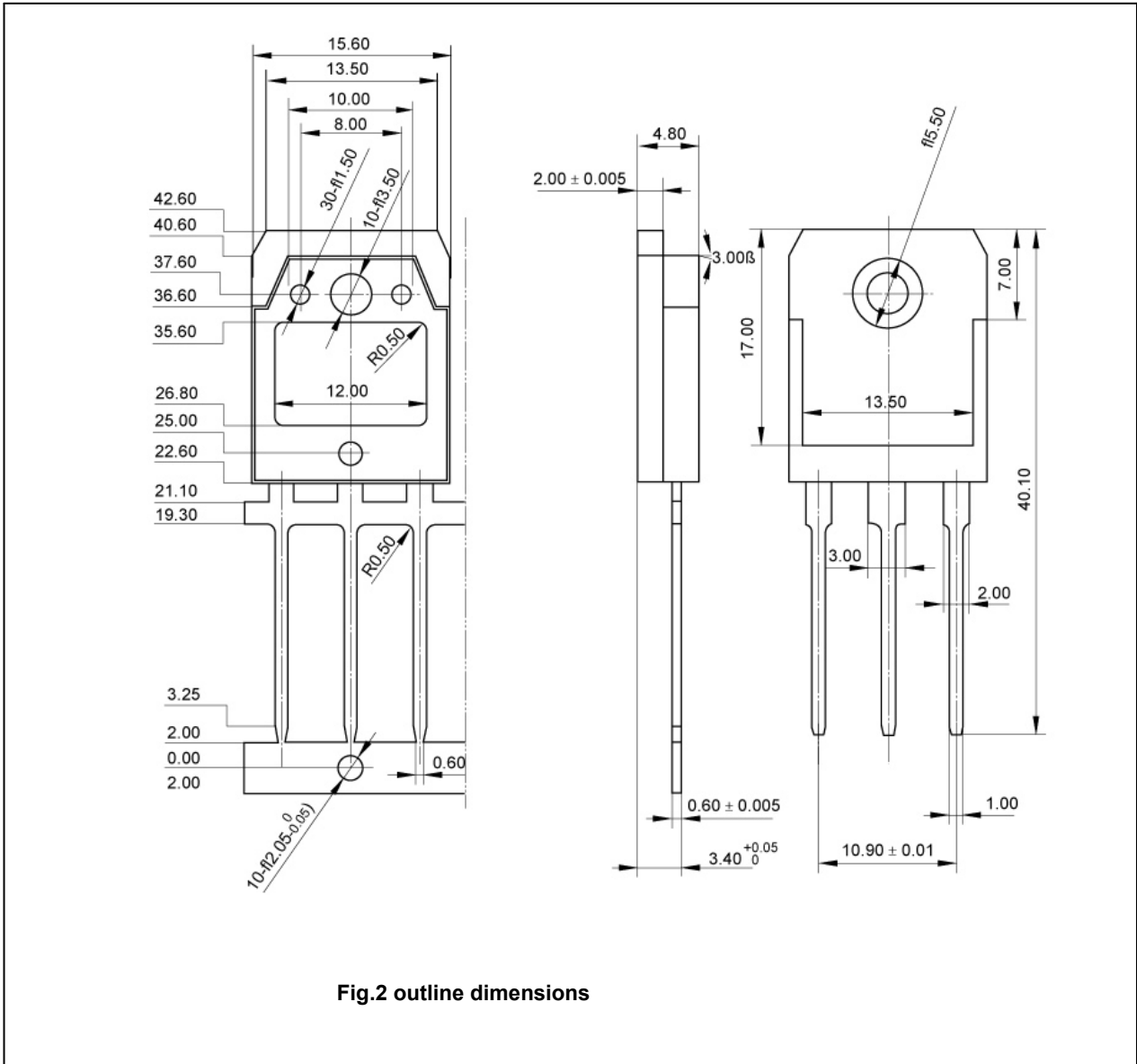


Fig.2 outline dimensions