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

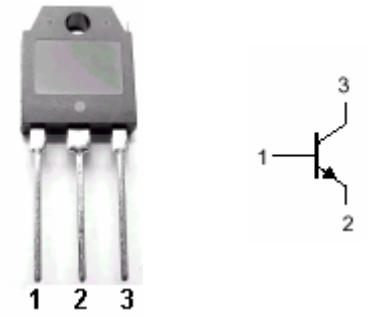

Fig.1 simplified outline (TO-3PN) and symbol

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
$R_{th\ j\text{-}C}$	Thermal resistance from junction to case	1.56	□/W

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CHARACTERISTICS

Tj=25□ 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

PACKAGE OUTLINE

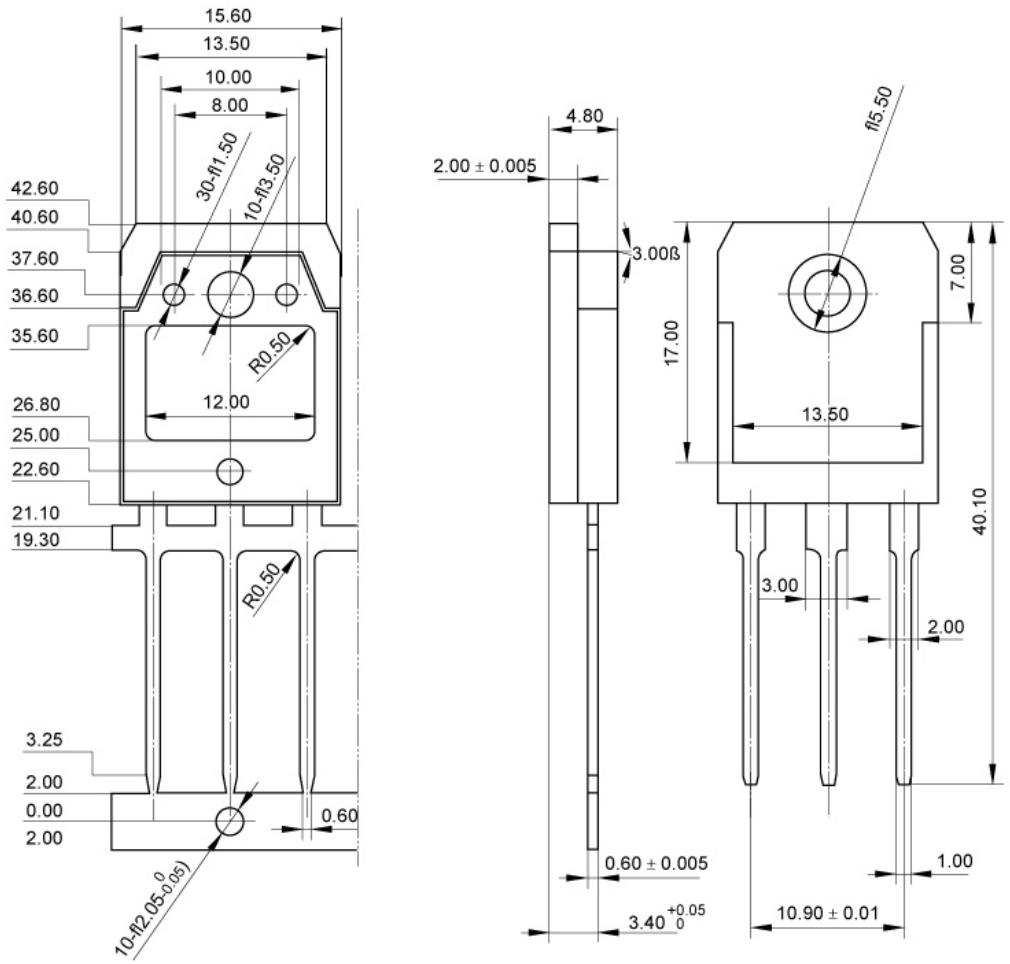

Fig.2 outline dimensions