

Silicon NPN Power Transistors

2SD2082

DESCRIPTION

- With TO-3PML package
- DARLINGTON
- Complement to type 2SB1382

APPLICATIONS

- Driver for Solenoid, Motor and General Purpose

PINNING

PIN	DESCRIPTION
1	Base
2	Collector
3	Emitter

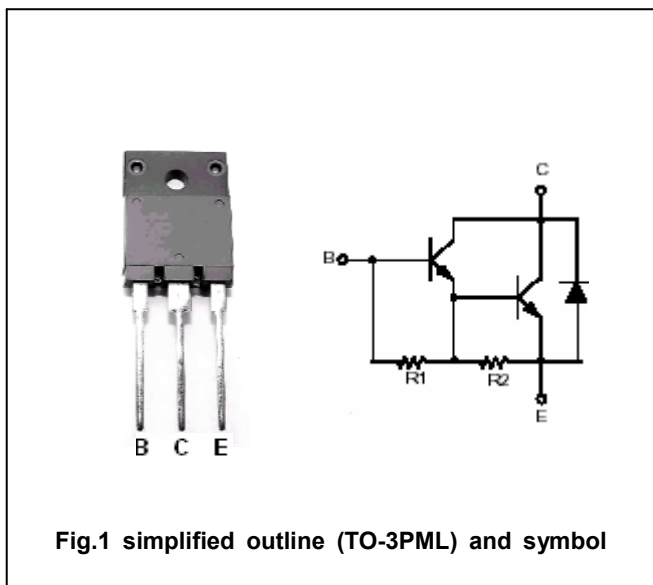


Fig.1 simplified outline (TO-3PML) and symbol

Absolute maximum ratings(Ta=25°C)

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
V _{CB0}	Collector-base voltage	Open emitter	120	V
V _{CEO}	Collector-emitter voltage	Open base	120	V
V _{EBO}	Emitter-base voltage	Open collector	6	V
I _C	Collector current		16	A
I _{CM}	Collector current-peak		26	A
I _B	Base current		1	A
P _C	Collector power dissipation	T _C =25°C	75	W
T _j	Junction temperature		150	°C
T _{stg}	Storage temperature		-55~150	°C

Silicon NPN Power Transistors

2SD2082

CHARACTERISTICS

T_j=25°C unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V _{CEsat}	Collector-emitter saturation voltage	I _C =8A; I _B =16m A			1.5	V
V _{BEsat}	Base-emitter saturation voltage	I _C =8A; I _B =16m A			2.5	V
V _{(BR)CEO}	Collector-emitter breakdown voltage	I _C =10mA; I _B =0	120			V
I _{EBO}	Emitter cut-off current	V _{EB} =6V; I _C =0			10	mA
I _{CBO}	Collector cut-off current	V _{CB} =120V; I _E =0			10	μA
h _{FE}	DC current gain	I _C =8 A ; V _{CE} =4V	2000			
f _T	Transition frequency	I _C =1 A ; V _{CE} =12V		20		MHz
C _{OB}	Output capacitance	I _E =0 ; V _{CB} =10V; f=1MHz		210		pF

Switching times

t _{on}	Turn-on time	I _C =8A ; I _{B1} =-I _{B2} =16mA V _{CC} =40V , R _L =5Ω		0.6		μs
t _s	Storage time			7.0		μs
t _f	Fall time			1.5		μs

Silicon NPN Power Transistors

2SD2082

PACKAGE OUTLINE

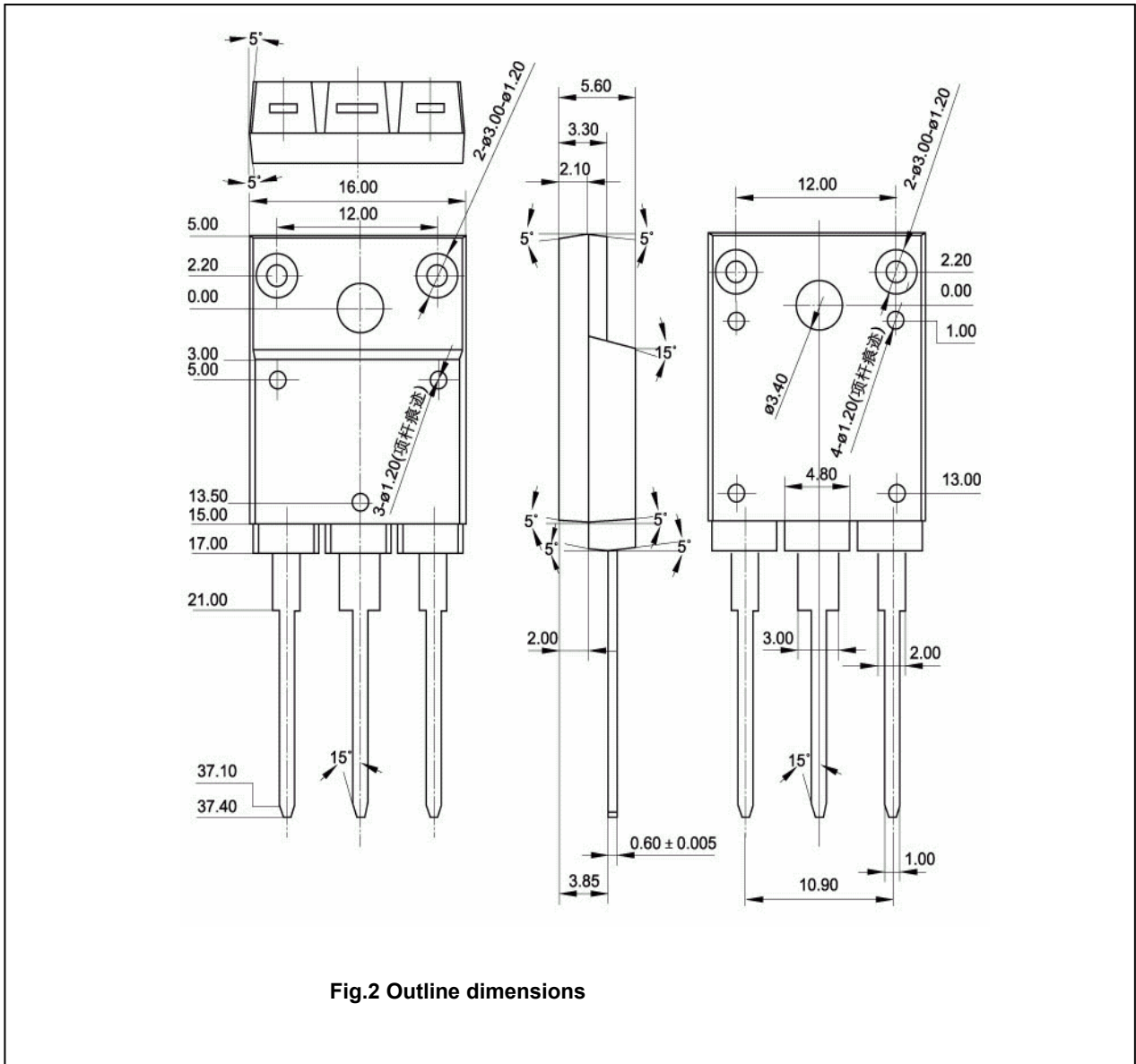


Fig.2 Outline dimensions