

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

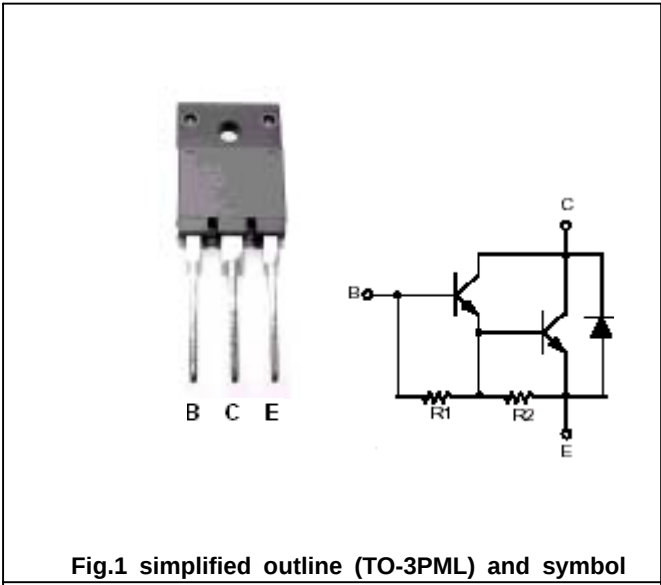


Fig.1 simplified outline (TO-3PML) and symbol

Maximum absolute ratings(Ta=25)

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	75	W
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_{CEsat}	Collector-emitter saturation voltage	$I_C=8A; I_B=16mA$			1.5	V
V_{BEsat}	Base-emitter saturation voltage	$I_C=8A; I_B=16mA$			2.5	V
$V_{CEO(BR)}$	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	$I_C=8A; V_{CE}=4V$	2000			
f_T	Transition frequency	$I_C=1A; V_{CE}=12V$		20		MHz
C_{OB}	Output capacitance	$I_E=0; V_{CB}=10V; f=1MHz$		210		pF

Switching times

t_{on}	Turn-on time	$I_C=8A; I_{B1}=-I_{B2}=16mA$ $V_{CC}=40V, R_L=5\Omega$		0.6		μs
t_s	Storage time			7.0		μs
t_f	Fall time			1.5		μs

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PACKAGE OUTLINE

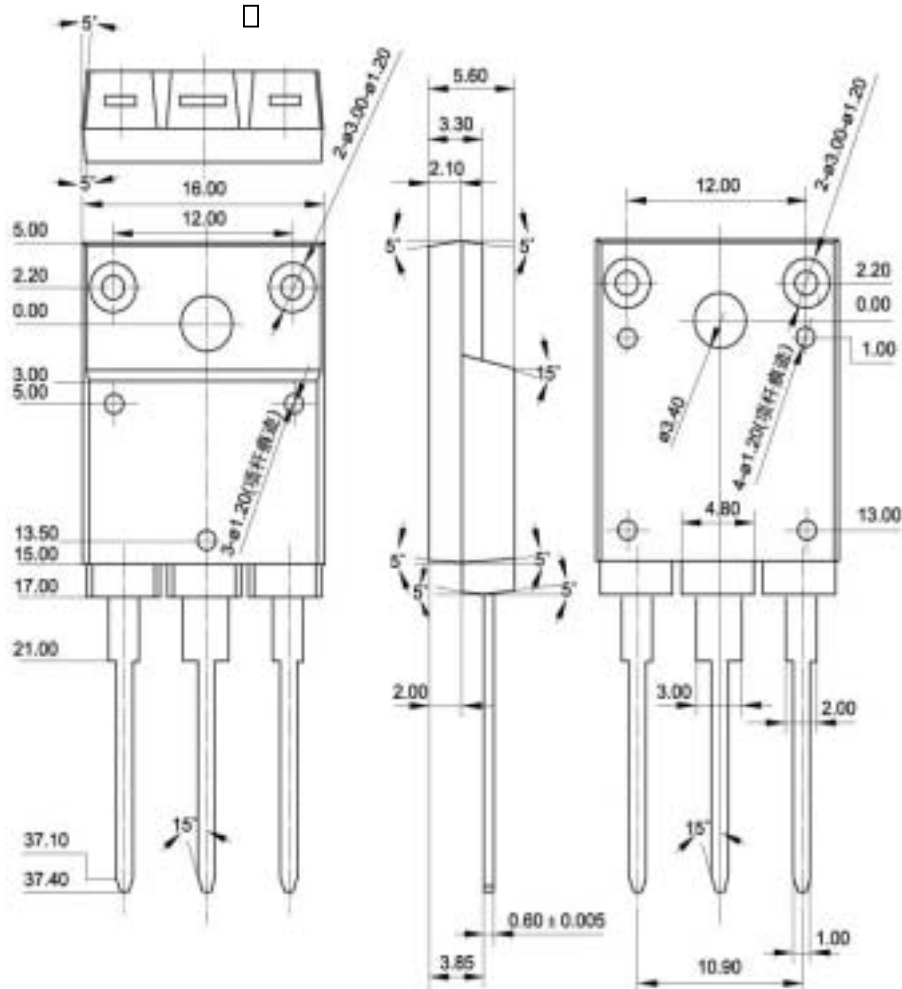


Fig.2 Outline dimensions