

Silicon NPN Power Transistors

2SD2053

DESCRIPTION

- With TO-3PN package
- Wide area of safe operation
- Complement to type 2SB1362

APPLICATIONS

- For high power amplifier applications

PINNING

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

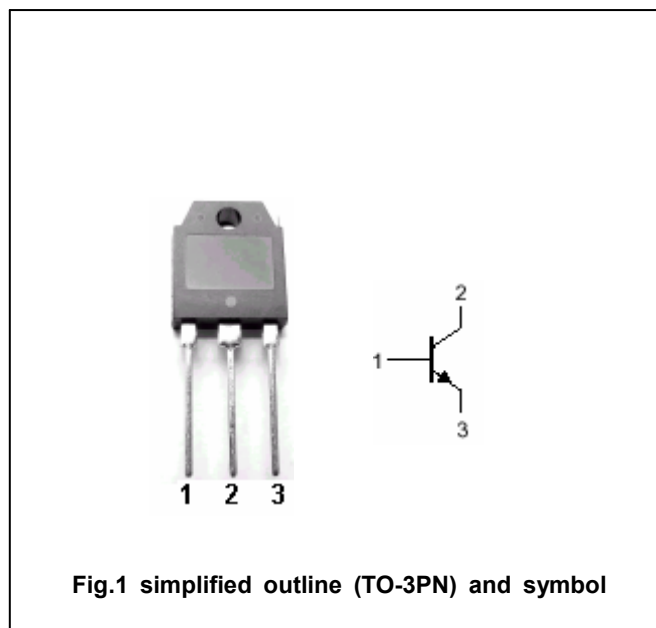


Fig.1 simplified outline (TO-3PN) and symbol

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

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
V_{CBO}	Collector-base voltage	Open emitter	150	V
V_{CEO}	Collector-emitter voltage	Open base	150	V
V_{EBO}	Emitter-base voltage	Open collector	5	V
I_C	Collector current (DC)		9	A
I_{CP}	Collector current (Pulse)		15	A
P_C	Collector power dissipation	$T_a=25$	2.5	W
		$T_c=25$	100	
T_j	Junction temperature		150	
T_{stg}	Storage temperature		-55~150	

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CHARACTERISTICS

Tj=25 unless otherwise specified

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SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{(BR)CEO}$	Collector-emitter breakdown voltage	$I_C=25mA; I_B=0$	150			V
V_{CEsat}	Collector-emitter saturation voltage	$I_C=7A; I_B=0.7A$			2.0	V
V_{BE}	Base-emitter on voltage	$I_C=7A; V_{CE}=5V$			1.8	V
I_{CBO}	Collector cut-off current	$V_{CB}=150V; I_E=0$			50	μA
I_{EBO}	Emitter cut-off current	$V_{EB}=5V; I_C=0$			50	μA
h_{FE-1}	DC current gain	$I_C=20mA; V_{CE}=5V$	20			
h_{FE-2}	DC current gain	$I_C=1A; V_{CE}=5V$	60		200	
h_{FE-3}	DC current gain	$I_C=7A; V_{CE}=5V$	15			
f_T	Transition frequency	$I_C=0.5A; V_{CE}=5V$		20		MHz
C_{OB}	Collector output capacitance	$f=1MHz; V_{CB}=10V$		150		pF

◆ h_{FE-2} Classifications

Q	P
60-120	100-200

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PACKAGE OUTLINE

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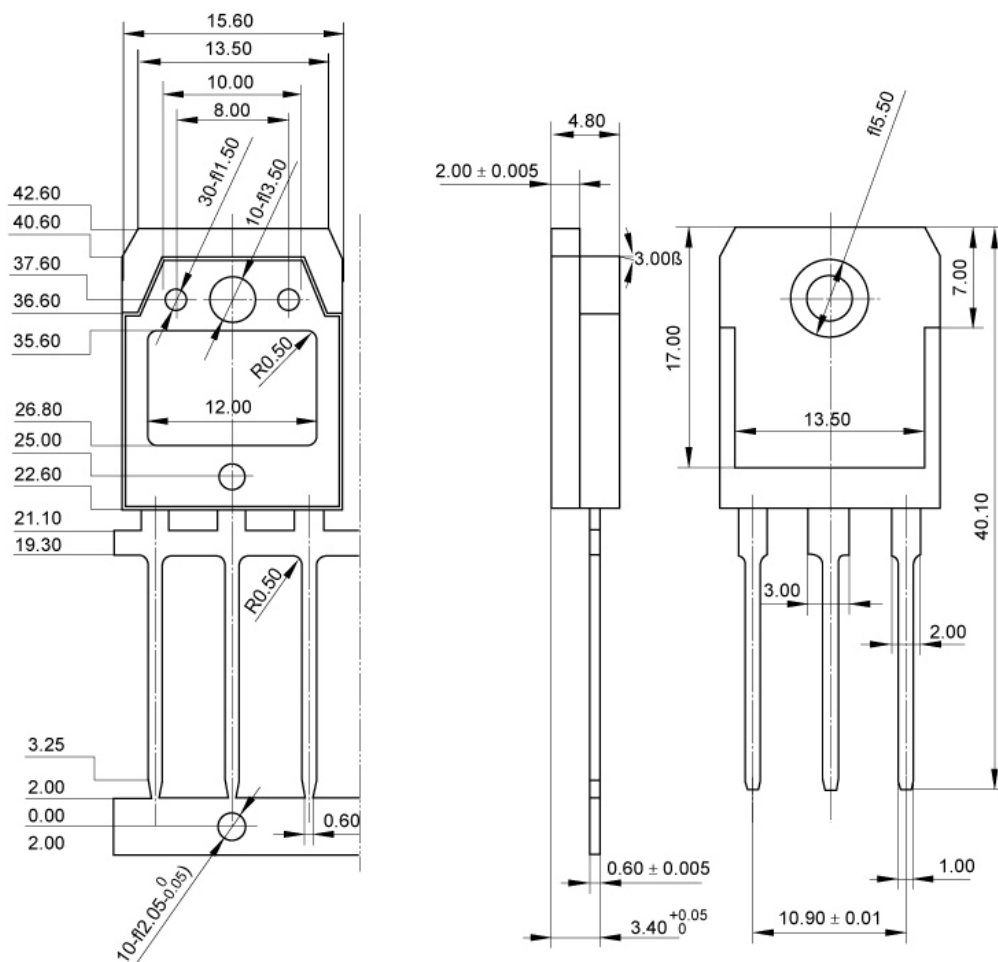


Fig.2 outline dimensions