

Silicon NPN Power Transistors

2SD5071

DESCRIPTION

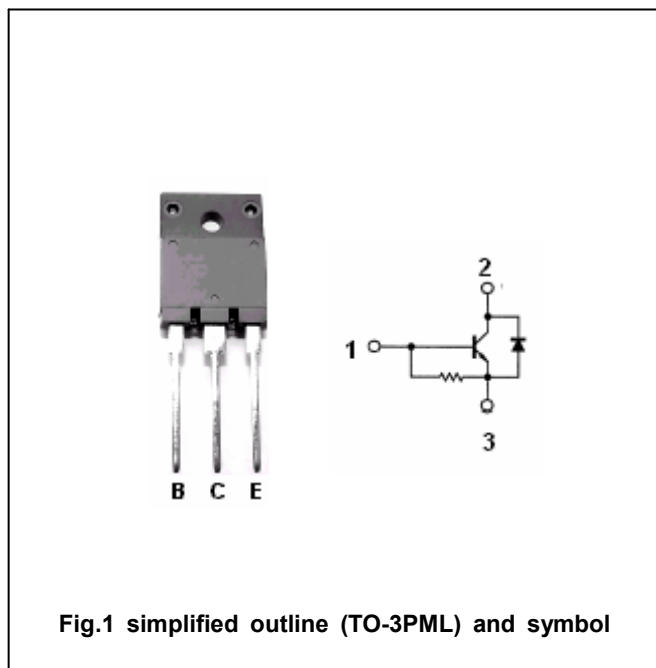
- With TO-3PML package
- High speed
- High breakdown voltage
- Built-in damper diode

APPLICATIONS

- Color TV horizontal output application

PINNING

PIN	DESCRIPTION
1	Base
2	Collector
3	Emitter

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

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
V_{CBO}	Collector-base voltage	Open emitter	1500	V
V_{CEO}	Collector-emitter voltage	Open base	800	V
V_{EBO}	Emitter-base voltage	Open collector	6	V
I_C	Collector current		3.5	A
I_{CM}	Collector current-peak		10	A
P_C	Collector power dissipation	$T_C=25^\circ\text{C}$	50	W
T_j	Junction temperature		150	$^\circ\text{C}$
T_{stg}	Storage temperature		-55~150	$^\circ\text{C}$

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CHARACTERISTICS

Tj=25°C unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V_{CEsat}	Collector-emitter saturation voltage	$I_C=2.5\text{ A}; I_B=0.8\text{ A}$			8.0	V
V_{BEsat}	Base-emitter saturation voltage	$I_C=2.5\text{ A}; I_B=0.8\text{ A}$			1.5	V
I_{CBO}	Collector cut-off current	$V_{CB}=800\text{ V}; I_E=0$			10	μA
I_{EBO}	Emitter cut-off current	$V_{EB}=4\text{ V}; I_C=0$	40		200	mA
h_{FE}	DC current gain	$I_C=0.5\text{ A}; V_{CE}=5\text{ V}$	8			
f_T	Transition frequency	$I_C=0.5\text{ A}; V_{CE}=10\text{ V}$		3		MHz
V_F	Diode forward voltage	$I_F=3.5\text{ A}$			2.0	V
t_f	Fall time	$I_C=3\text{ A}; R_L=66.7\Omega; V_{CC}=200\text{ V}$ $I_{B1}=0.8\text{ A}; I_{B2}=-1.6\text{ A}$			0.4	μs

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PACKAGE OUTLINE

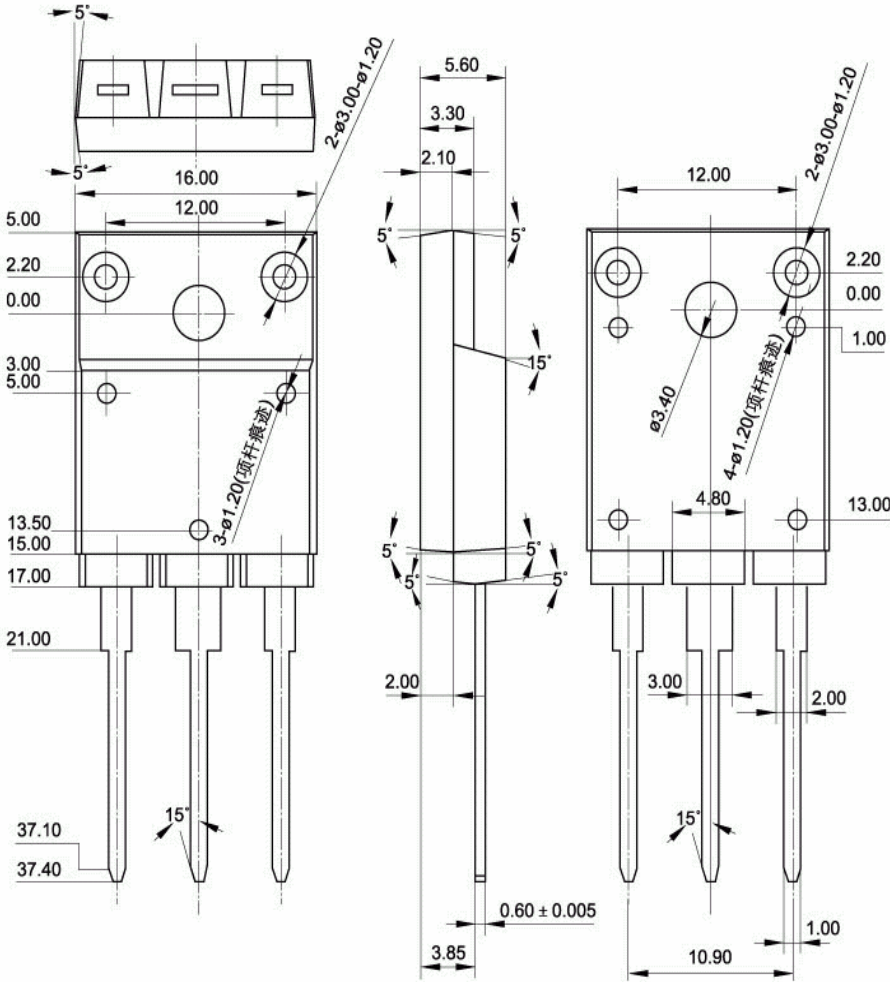


Fig.2 Outline dimensions