

Silicon NPN Power Transistors

2SD5702

DESCRIPTION

- With TO-3P(H)IS package
- Built-in damper diode
- High voltage ,high speed

APPLICATIONS

- For color display horizontal deflection output applications

PINNING

PIN	DESCRIPTION
1	Base
2	Collector
3	Emitter

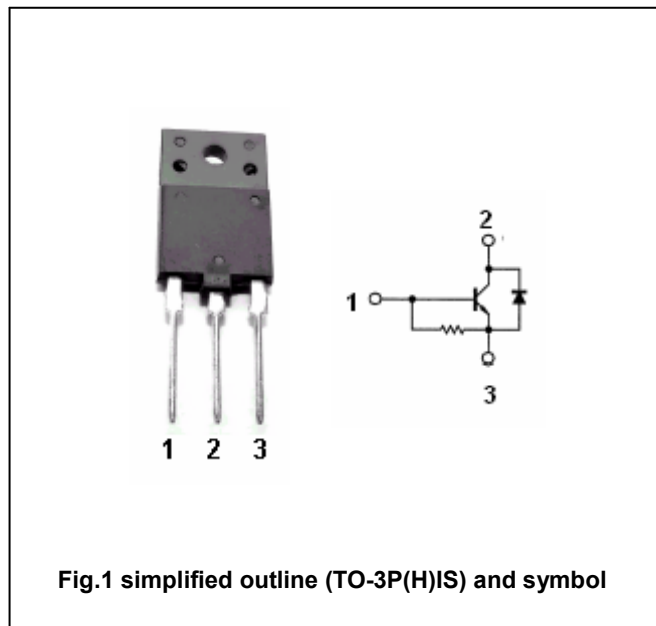


Fig.1 simplified outline (TO-3P(H)IS) and symbol

Absolute maximum ratings (Ta=25℃)

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		6	A
I_{CM}	Collector current-peak		16	A
P_C	Collector power dissipation	$T_C=25^{\circ}\text{C}$	60	W
T_j	Junction temperature		150	℃
T_{stg}	Storage temperature		-55~150	℃

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CHARACTERISTICS

Tj=25°C unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V_{CEsat}	Collector-emitter saturation voltage	$I_C=4A$; $I_B=0.8A$		2.0	5.0	V
V_{BEsat}	Base-emitter saturation voltage	$I_C=4A$; $I_B=0.8A$			1.5	V
I_{CBO}	Collector cut-off current	$V_{CB}=800V$; $I_E=0$			10	μA
I_{EBO}	Emitter cut-off current	$V_{EB}=4V$; $I_C=0$	40		200	mA
h_{FE-1}	DC current gain	$I_C=1A$; $V_{CE}=5V$	10		30	
h_{FE-2}	DC current gain	$I_C=3A$; $V_{CE}=5V$	5		15	
f_T	Transition frequency	$I_C=1A$; $V_{CE}=10V$		3		MHz
V_F	Diode forward voltage	$I_F=6A$			2.0	V
t_f	Fall time	$I_C=4A$; $I_{B1}=0.8A$; $I_{B2}=-1.6A$ $V_{CC}=200V$; $R_L=50\Omega$			0.4	μs

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PACKAGE OUTLINE

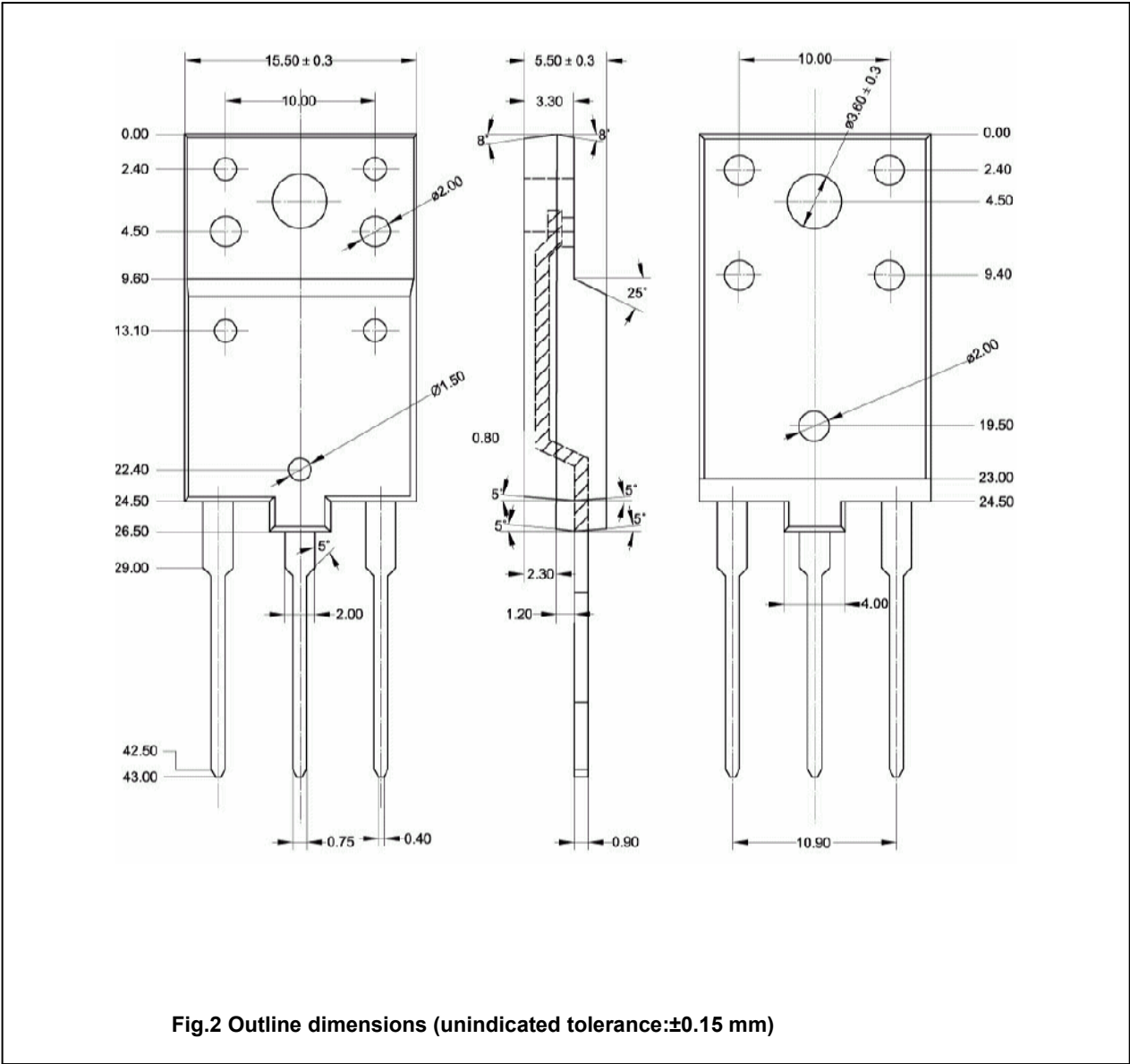


Fig.2 Outline dimensions (unindicated tolerance:±0.15 mm)