

Silicon NPN Power Transistors

2SD2089

DESCRIPTION

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

APPLICATIONS

- Small screen color TV horizontal output applications

PINNING

PIN	DESCRIPTION
1	Base
2	Collector
3	Emitter

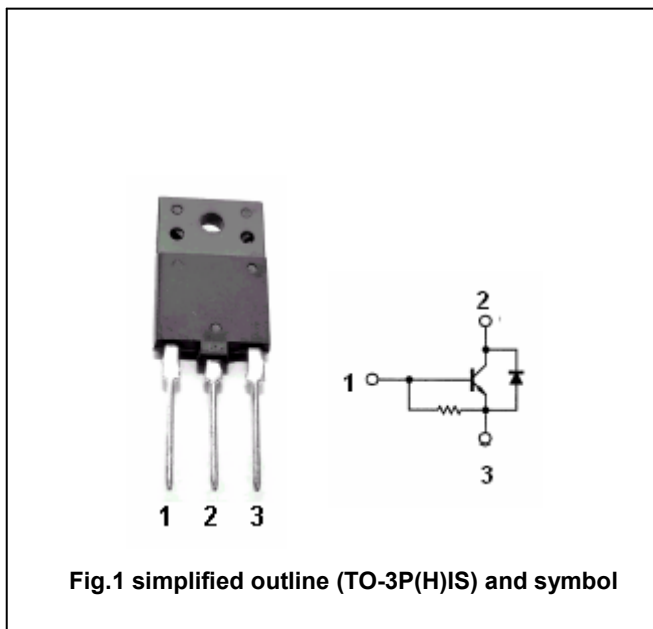


Fig.1 simplified outline (TO-3P(H)IS) and symbol

Absolute maximum ratings(Ta=25°C)

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
V _{CBO}	Collector-base voltage	Open emitter	1500	V
V _{CEO}	Collector-emitter voltage	Open base	600	
V _{EBO}	Emitter-base voltage	Open collector	5	V
I _C	Collector current		3.5	A
I _B	Base current		1	A
P _C	Collector power dissipation	Ta=25°C	3.5	W
		Tc=25°C	40	
T _j	Junction temperature		150	°C
T _{stg}	Storage temperature		-55~150	°C

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CHARACTERISTICS

T_j=25°C unless otherwise specified

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SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V _{(BR)EBO}	Emitter-base breakdown voltage	I _E =200mA, I _C =0	5			V
V _{CEsat}	Collector-emitter saturation voltage	I _C =2.2A; I _B =0.7A		0.3	1.0	V
V _{BEsat}	Base-emitter saturation voltage	I _C =2.2A; I _B =0.7A		0.85	1.0	V
I _{CBO}	Collector cut-off current	V _{CB} =500V; I _E =0			10	μA
h _{FE}	DC current gain	I _C =0.5A; V _{CE} =5V	9		18	
f _T	Transition frequency	I _C =0.1A; V _{CE} =10V		3		MHz
C _{OB}	Collector output capacitance	I _E =0; V _{CB} =10V; f=1MHz		95		pF
V _F	Diode forward voltage	I _F =2.2A		1.2	1.5	V
t _f	Fall time	I _{CP} =2.2A; I _{B1(end)} =0.7A		0.2	0.5	μs

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PACKAGE OUTLINE

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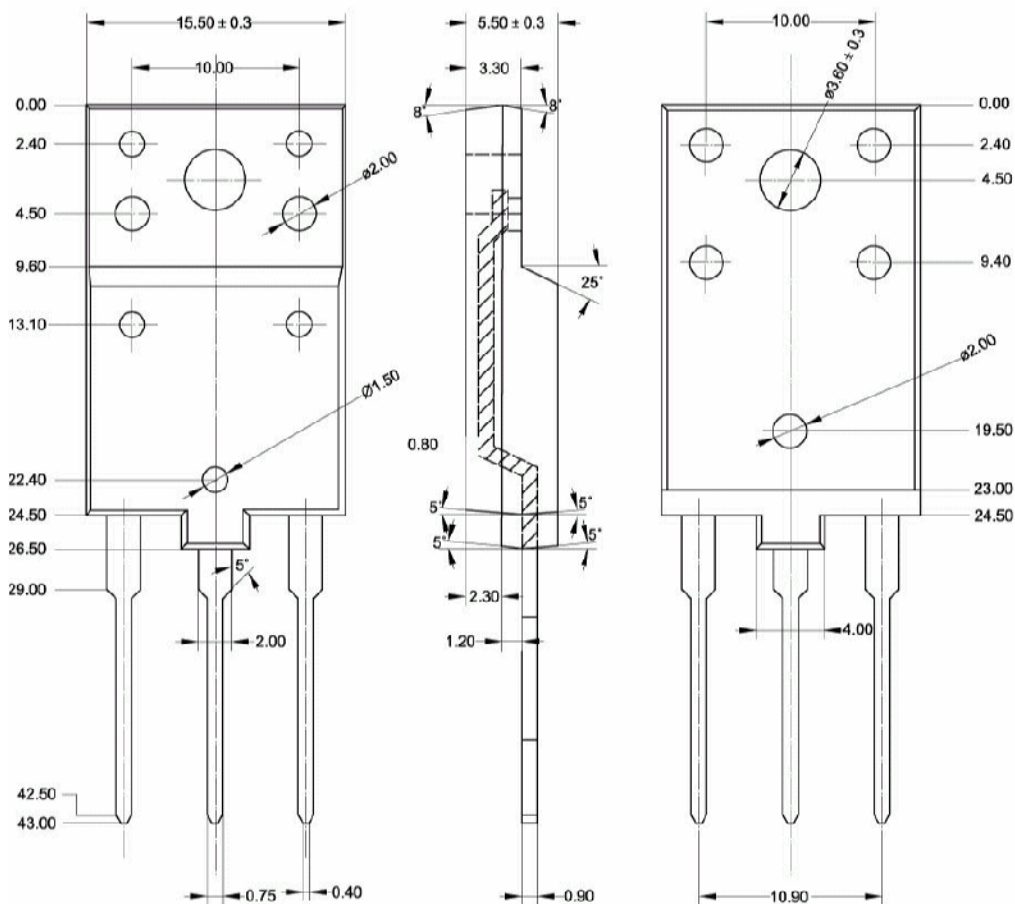


Fig.2 Outline dimensions (unindicated tolerance: ± 0.15 mm)