

Silicon NPN Power Transistors

2SD2089

DESCRIPTION

- 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

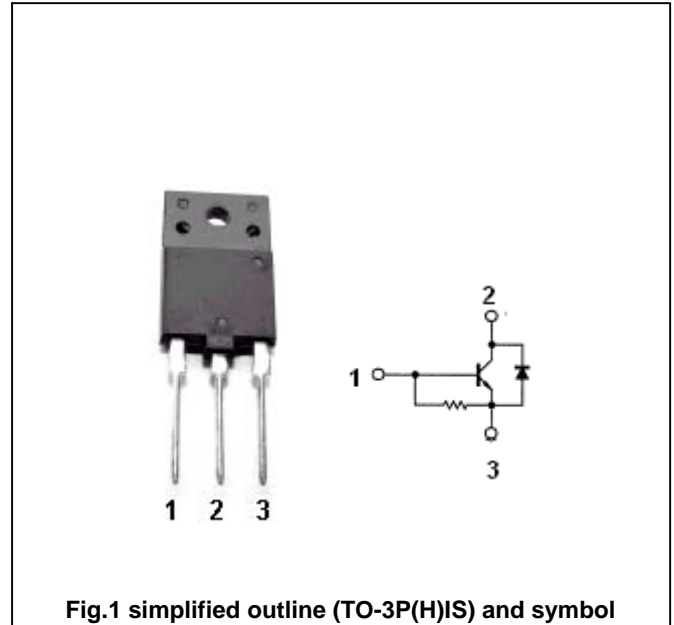


Fig.1 simplified outline (TO-3P(H)IS) and symbol

ABSOLUTE MAXIMUM RATINGS AT Ta=25

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	3.5	W
		Tc=25	40	
T_j	Junction temperature		150	
T_{stg}	Storage temperature		-55~150	

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CHARACTERISTICS

T_j=25 unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V _{EB0}	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}	Emitter-base 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

