Silicon Power Transistors 2SC5129

DESCRIPTION

- With TO-3P(H)IS package
- High speed
- High voltage
- Low saturation voltage

APPLICATIONS

- Horizontal deflection output for high resolution display,colorTV
- High speed switching applications

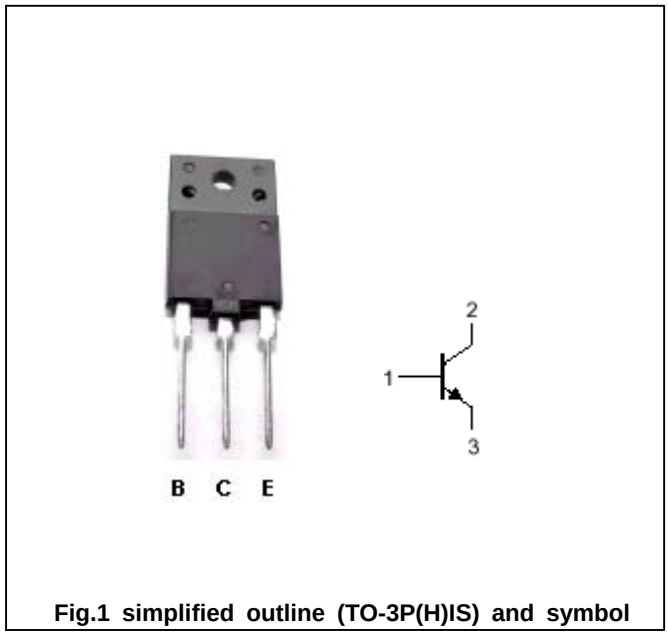


Fig.1 simplified outline (TO-3P(H)IS) and symbol

PINNING

PIN	DESCRIPTION
1	Base
2	Collector
3	Emitter

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	600	V
V_{EBO}	Emitter-base voltage	Open collector	5	V
I_C	Collector current		10	A
I_{CM}	Collector current-Peak		20	A
I_B	Base current		5	A
P_T	Total power dissipation	T_C=25℃	50	W
T_j	Junction temperature		150	℃
T_{stg}	Storage temperature		-55~150	℃

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CHARACTERISTICS

Tj=25℃ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V_{CEO}	Collector-emitter breakdown voltage	I_C=10mA ;I_B=0	600			V
V_{CEsat}	Collector-emitter saturation voltage	I_C=6A I_B=1.5A			3.0	V
V_{BEsat}	Base-emitter saturation voltage	I_C=6A I_B=1.5A			1.4	V
I_{CBO}	Collector cut-off current	V_{CB}=1500V I_E=0			1	mA
I_{EBO}	Emitter cut-off current	V_{EB}=5V; I_C=0			10	μA
h_{FE-1}	DC current gain	I_C=1A ; V_{CE}=5V	10		30	
h_{FE-2}	DC current gain	I_C=6A ; V_{CE}=5V	4		8	
C_{ob}	Collector output capacitance	I_E=0 ; V_{CB}=10V,f=1MHz		135		pF
f_T	Transition frequency	I_C=0.1A ; V_{CE}=10V		1.7		MHz
Switching times (inductive load)						
t_s	Storage time	I_{CP}=5A;$I_{B1(end)}$ =2A f_H=64kHz			4.0	μs
t_f	Fall time				0.3	μs

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PACKAGE OUTLINE

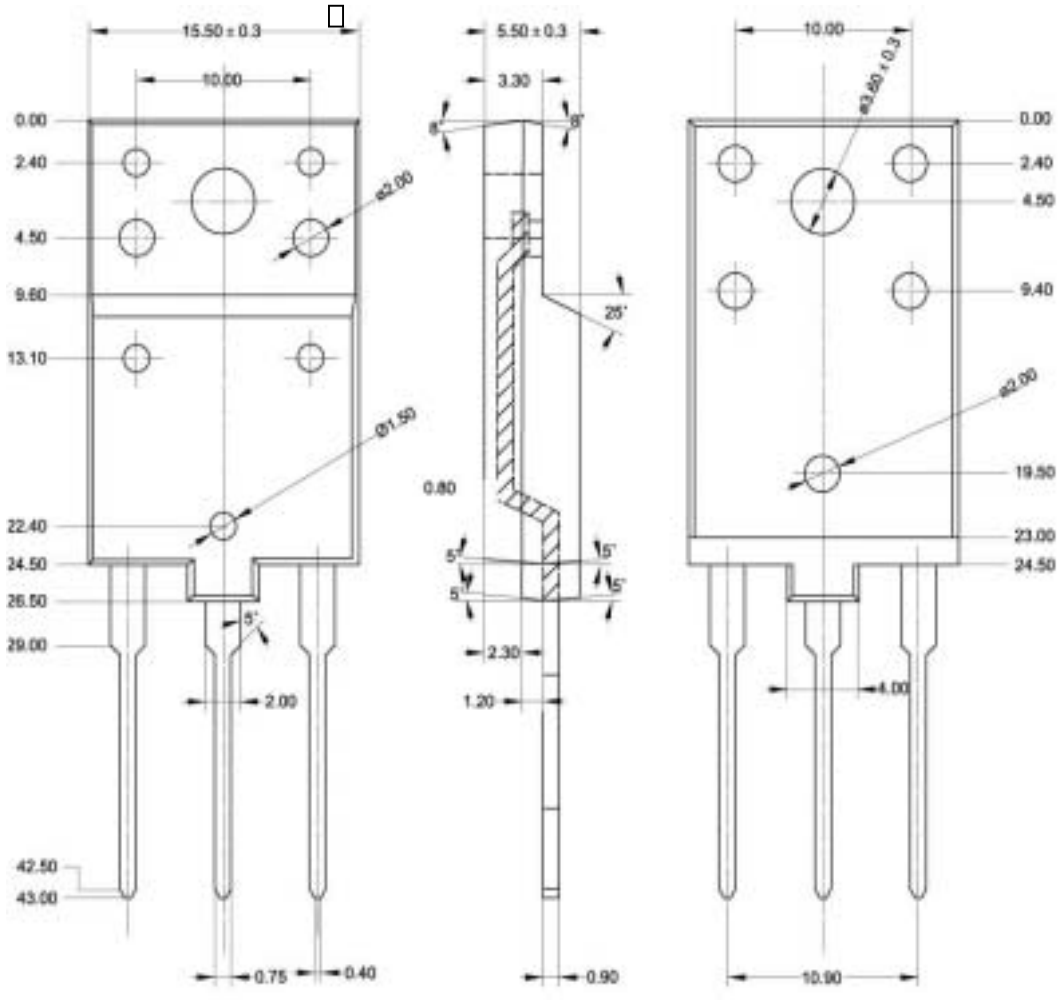


Fig.2 Outline dimensions (unindicated tolerance:±0.20 mm)