

Silicon NPN Power Transistors

2SC4762

DESCRIPTION

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

APPLICATIONS

- Horizontal deflection output for medium resolution display

PINNING

PIN	DESCRIPTION
1	Base
2	Collector
3	Emitter

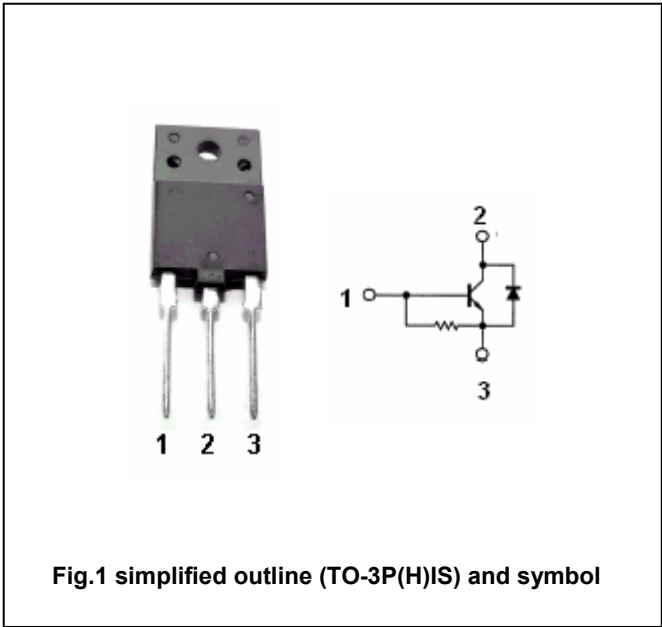


Fig.1 simplified outline (TO-3P(H)IS) and symbol

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	600	V
V_{EBO}	Emitter-base voltage	Open collector	5	V
I_C	Collector current		±7	A
I_{CM}	Collector current-peak		±14	A
I_B	Base current		3.5	A
P_C	Collector power dissipation	$T_C=25^{\circ}\text{C}$	50	W
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 _{(BR)EBO}	Emitter-base breakdown voltage	I _E =300mA ; I _C =0	5			V
V _{CEsat}	Collector-emitter saturation voltage	I _C =5A; I _B =1A			5	V
V _{BEsat}	Base-emitter saturation voltage	I _C =5A ; I _B =1A			1.5	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	83		250	mA
h _{FE-1}	DC current gain	I _C =1A ; V _{CE} =5V	8	12		
h _{FE-2}	DC current gain	I _C =5A ; V _{CE} =5V	5		9	
C _{ob}	Collector output capacitance	I _E =0 ; V _{CB} =10V, f=1MHz		170		pF
V _F	Diode forward voltage	I _F =5A		1.25	1.8	V
f _T	Transition frequency	I _C =0.1A ; V _{CE} =10V	1	3		MHz

Switching times resistive load

t _s	Storage time	I _{CP} =5A; I _{B1} =1A I _{B2} =-2A; R _L =39Ω		1.8	3.0	μs
t _f	Fall time			0.1	0.2	μs

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The technical drawing consists of three views of a mechanical part:

- Front View (Left):** Shows a rectangular body with a central circular feature. Dimensions include overall width 15.50 ± 0.3 , a central slot width of 10.00 , and vertical positions at 0.00 , 2.40 , 4.50 , 9.80 , 13.10 , 22.40 , 24.50 , 26.50 , 29.00 , 42.50 , and 43.00 . It features two holes labeled $\phi 2.00$ and one hole labeled $\phi 1.50$.
- Side View (Middle):** Shows the profile of the part with a total height of 5.50 ± 0.3 . It includes chamfers of 8° and 25° , and other angles of 5° . Horizontal dimensions are 3.30 , 0.80 , 2.30 , and 1.20 . A base dimension of 0.90 is shown.
- Top View (Right):** Shows the plan view with a square footprint of 10.00 by 10.90 . It has a central hole labeled $\phi 3.80 \pm 0.3$ and four corner holes labeled $\phi 2.00$. Vertical positions are marked at 0.00 , 2.40 , 4.50 , 9.40 , 19.50 , 23.00 , and 24.50 . A horizontal distance of 4.00 is indicated between the centerlines of the corner holes.

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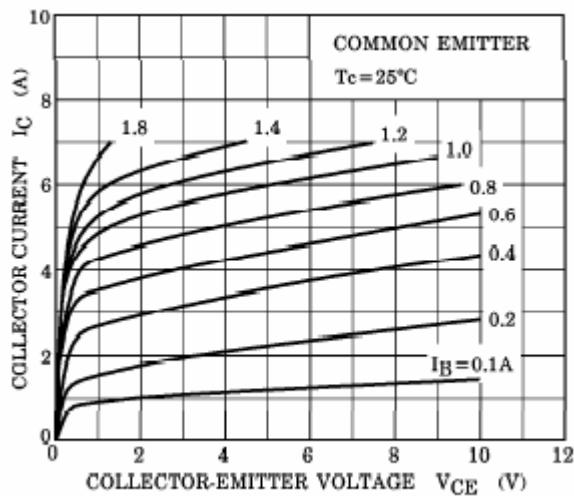


Fig.3 Static Characteristic

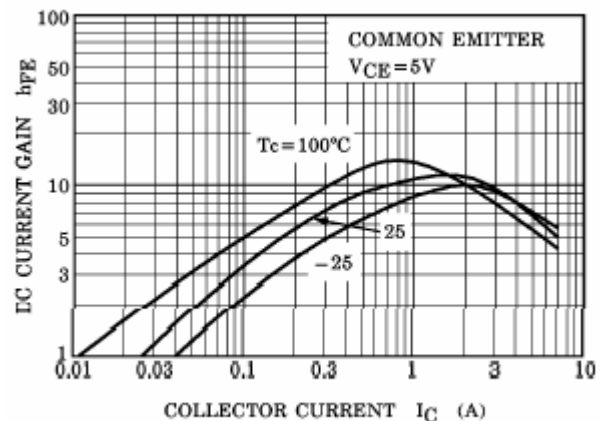


Fig.4 DC current Gain

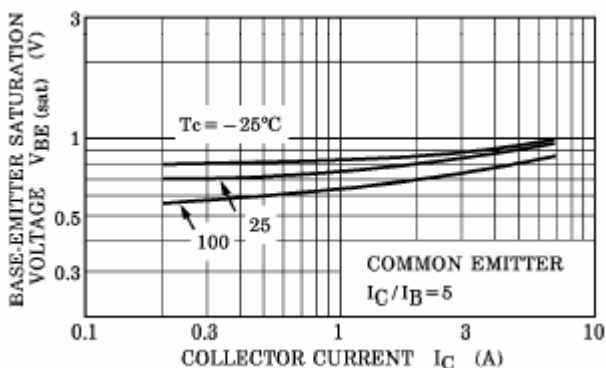


Fig.5 Base-Emitter Saturation Voltage

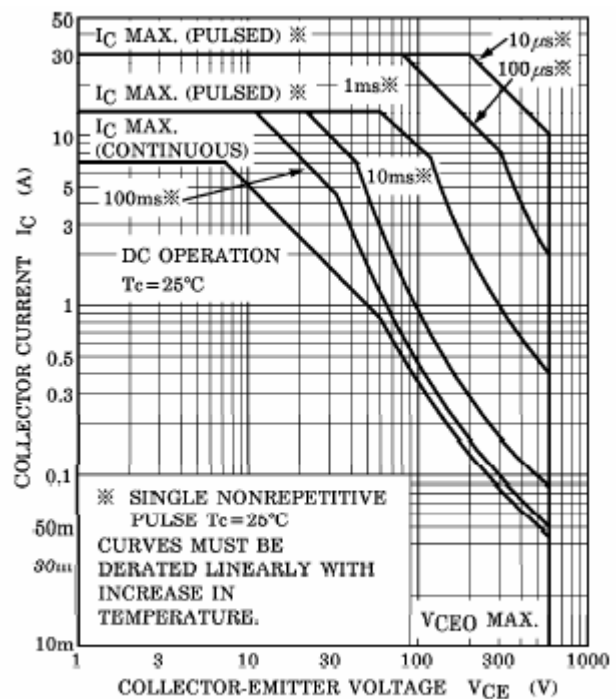


Fig.6 Safe Operating Area