

## Silicon PNP Power Transistors

2SA1673

## DESCRIPTION

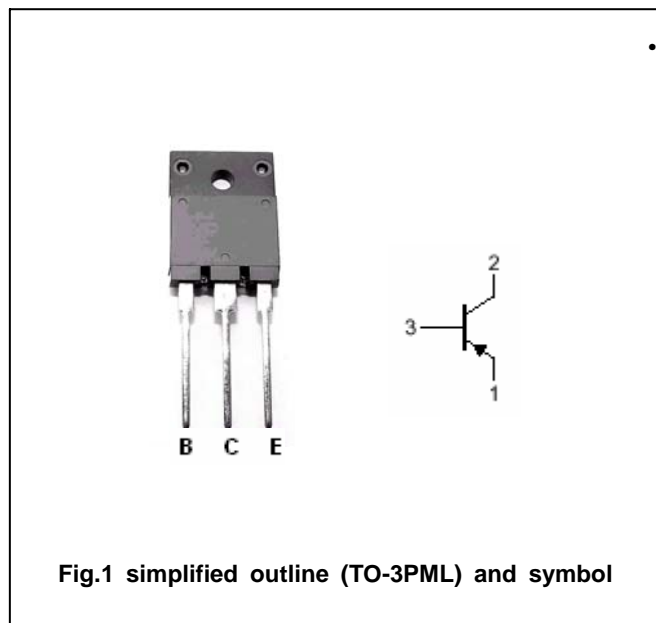
- With TO-3PML package
- Complement to type 2SC4388

## APPLICATIONS

- Audio and general purpose

## PINNING

PIN	DESCRIPTION
1	Emitter
2	Collector
3	Base



## Absolute maximum ratings(Ta=25°C)

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
$V_{CBO}$	Collector-base voltage	Open emitter	-180	V
$V_{CEO}$	Collector-emitter voltage	Open base	-180	V
$V_{EBO}$	Emitter-base voltage	Open collector	-6	V
$I_C$	Collector current		-15	A
$I_B$	Base current		-4	A
$P_C$	Collector power dissipation	$T_C=25^\circ\text{C}$	85	W
$T_j$	Junction temperature		150	$^\circ\text{C}$
$T_{stg}$	Storage temperature		-55~150	$^\circ\text{C}$

## Silicon PNP Power Transistors

2SA1673

## CHARACTERISTICS

 $T_j=25^\circ\text{C}$  unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{(BR)CEO}$	Collector-emitter breakdown voltage	$I_C=-50\text{mA}; I_B=0$	-180			V
$V_{CEsat}$	Collector-emitter saturation voltage	$I_C=-5\text{A}; I_B=-0.5\text{A}$			-2.0	V
$I_{CBO}$	Collector cut-off current	$V_{CB}=-180\text{V}; I_E=0$			-10	$\mu\text{A}$
$I_{EBO}$	Emitter cut-off current	$V_{EB}=-6\text{V}; I_C=0$			-10	$\mu\text{A}$
$h_{FE}$	DC current gain	$I_C=-3\text{A}; V_{CE}=-4\text{V}$	50		180	
$f_T$	Transition frequency	$I_C=-0.5\text{A}; V_{CE}=-12\text{V}$		20		MHz
$C_{OB}$	Output capacitance	$I_E=0; V_{CB}=-10\text{V}; f=1\text{MHz}$		500		pF

## Switching times

$t_{on}$	Turn-on time	$I_C=-10\text{A}; R_L=4\ \Omega$ $I_{B1}=-I_{B2}=-1\text{A}$ $V_{CC}=-40\text{V}$		0.60		$\mu\text{s}$
$t_s$	Storage time			0.90		$\mu\text{s}$
$t_f$	Fall time			0.20		$\mu\text{s}$

◆  $h_{FE}$  classifications

O	P	Y
50-100	70-140	90-180

Silicon PNP Power Transistors

2SA1673

PACKAGE OUTLINE

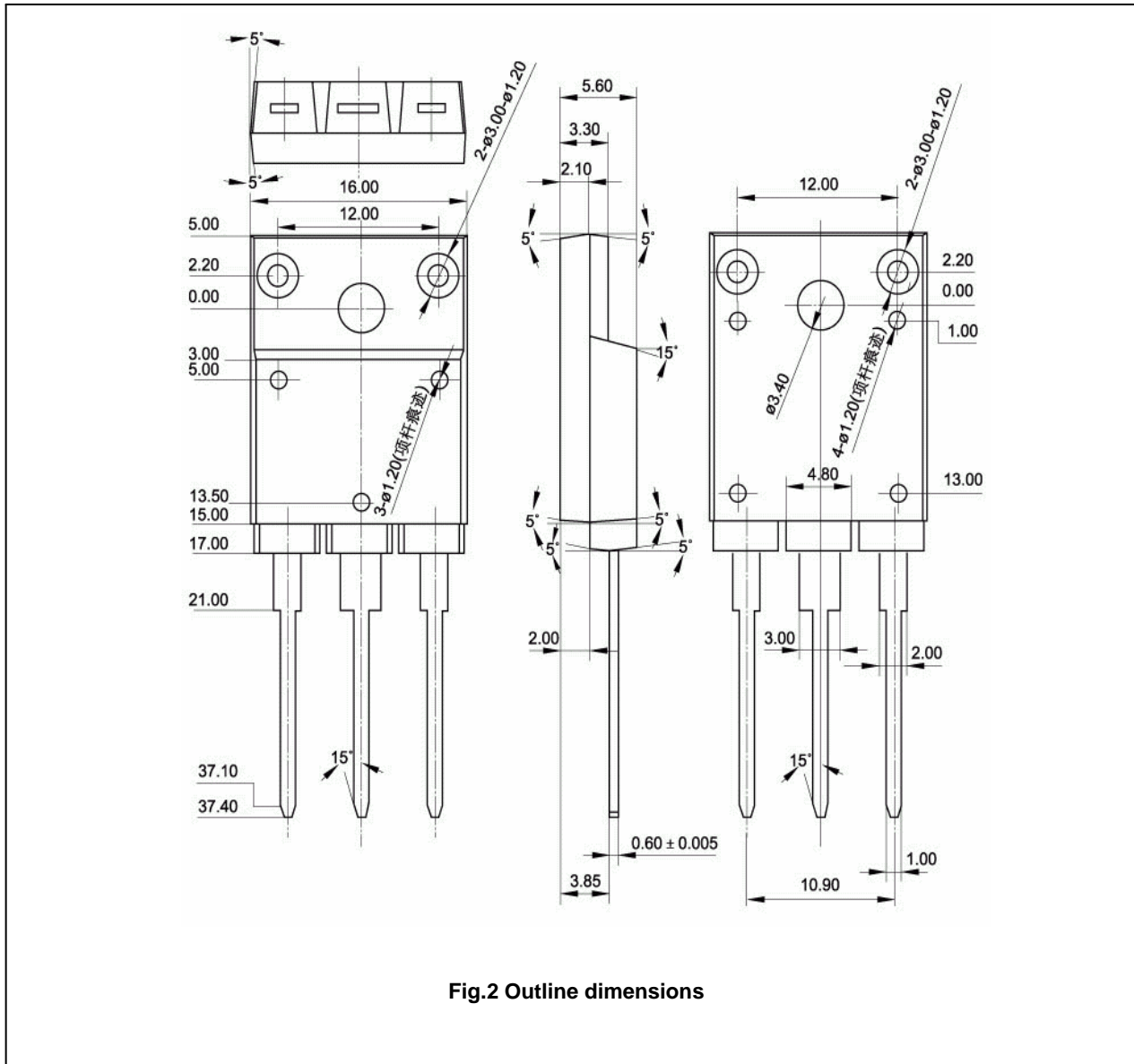


Fig.2 Outline dimensions

Silicon PNP Power Transistors

2SA1673

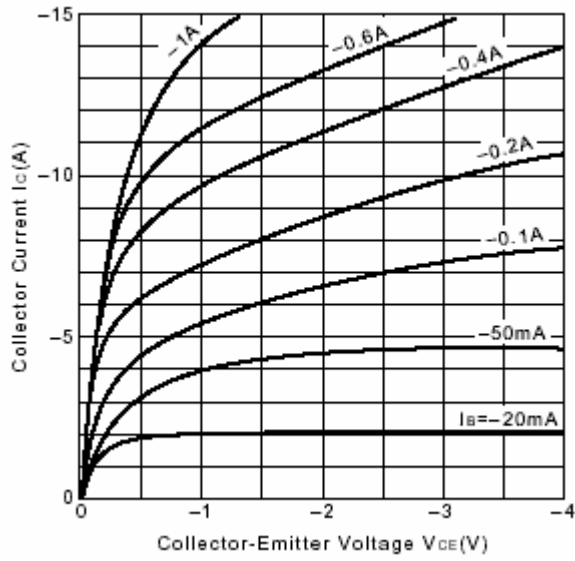


Fig.3 Static Characteristic

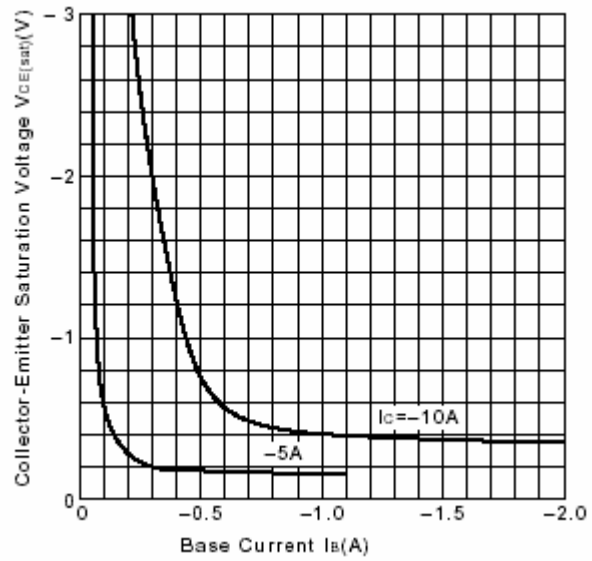


Fig.4 Vce(sat)-Ib Characteristics

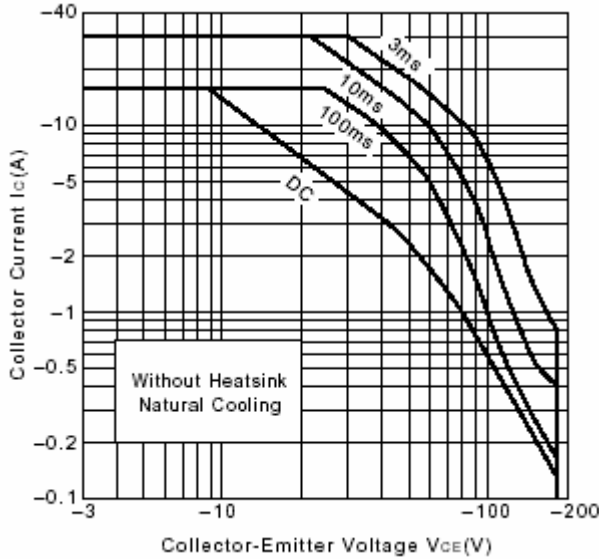


Fig.5 Safe Operating Area

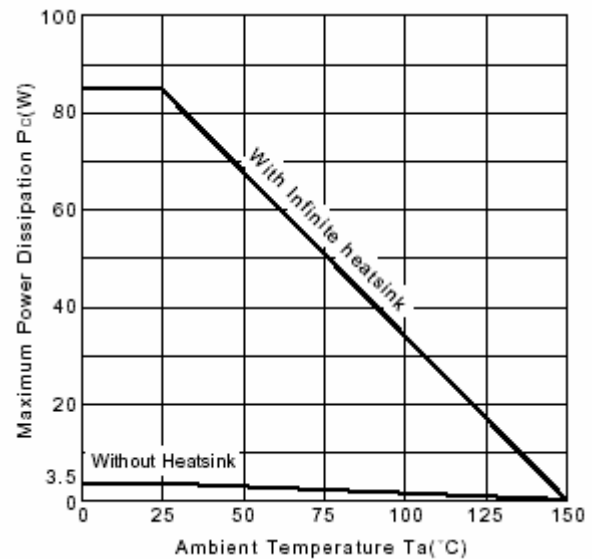


Fig.6 Pc-Ta Derating

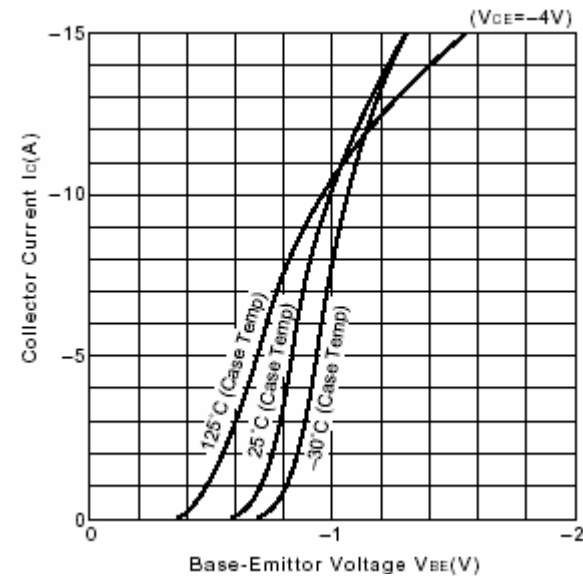


Fig.7 Ic-Vbe

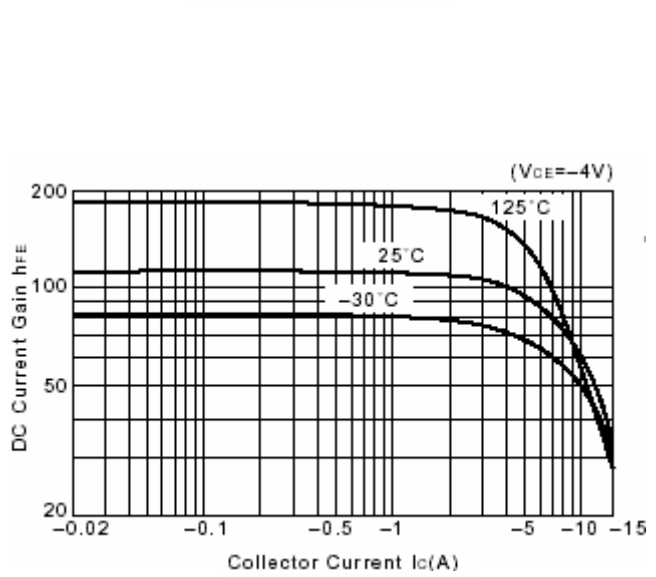


Fig.8 DC current Gain