

**Silicon PNP Power Transistors**

**2SA473**

**DESCRIPTION**

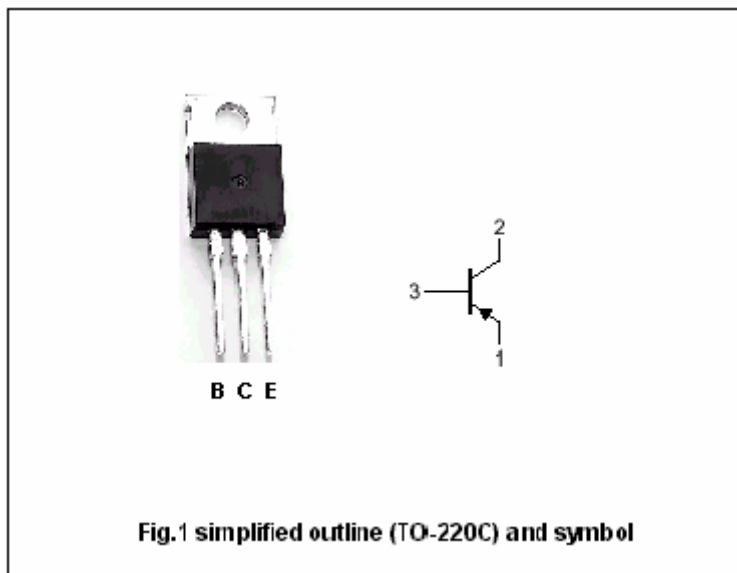
- With TO-220 package
- Complement to type 2SC1173
- Collector current : $I_C=-3A$
- Collector dissipation: $P_C=10W@T_C=25^{\circ}C$

**APPLICATIONS**

- Low frequency power amplifier
- Power regulator

**PINNING**

PIN	DESCRIPTION
1	Emitter
2	Collector;connected to mounting base
3	Base



**Absolute maximum ratings (Ta=25°C)**

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
$V_{CBO}$	Collector-base voltage	Open emitter	-30	V
$V_{CEO}$	Collector-emitter voltage	Open base	-30	V
$V_{EBO}$	Emitter-base voltage	Open collector	-5	V
$I_C$	Collector current (DC)		-3	A
$P_C$	Collector power dissipation	$T_C=25^{\circ}C$	10	W
$T_j$	Junction temperature		150	$^{\circ}C$
$T_{stg}$	Storage temperature		-55~150	$^{\circ}C$

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## CHARACTERISTICS

T<sub>j</sub>=25°C unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V <sub>(BR)CEO</sub>	Collector-emitter breakdown voltage	I <sub>C</sub> =-10mA ; I <sub>B</sub> =0	-30			V
V <sub>(BR)CBO</sub>	Collector-base breakdown voltage	I <sub>C</sub> =-0.5mA ; I <sub>E</sub> =0	-30			V
V <sub>(BR)EBO</sub>	Emitter-base breakdown voltage	I <sub>E</sub> =-1mA ; I <sub>C</sub> =0	-5			V
V <sub>CEsat</sub>	Collector-emitter saturation voltage	I <sub>C</sub> =-2A; I <sub>B</sub> =-0.2A			-0.8	V
V <sub>BE</sub>	Base-emitter voltage	I <sub>C</sub> =-0.5A ; V <sub>CE</sub> =-2V			-1.0	V
I <sub>CBO</sub>	Collector cut-off current	V <sub>CB</sub> =-20V; I <sub>E</sub> =0			-1.0	μ A
I <sub>EBO</sub>	Emitter cut-off current	V <sub>EB</sub> =-5V; I <sub>C</sub> =0			-1.0	μ A
h <sub>FE-1</sub>	DC current gain	I <sub>C</sub> =-0.5A ; V <sub>CE</sub> =-2V	70		240	
h <sub>FE-2</sub>	DC current gain	I <sub>C</sub> =-2.5A ; V <sub>CE</sub> =-2V	25			
C <sub>OB</sub>	Output capacitance	I <sub>E</sub> =0; V <sub>CB</sub> =-10V; f=1MHz		40		pF
f <sub>T</sub>	Transition frequency	I <sub>C</sub> =-0.5A ; V <sub>CE</sub> =-2V		100		MHz

◆ h<sub>FE-1</sub> classifications

O	Y
70-140	120-240

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PACKAGE OUTLINE

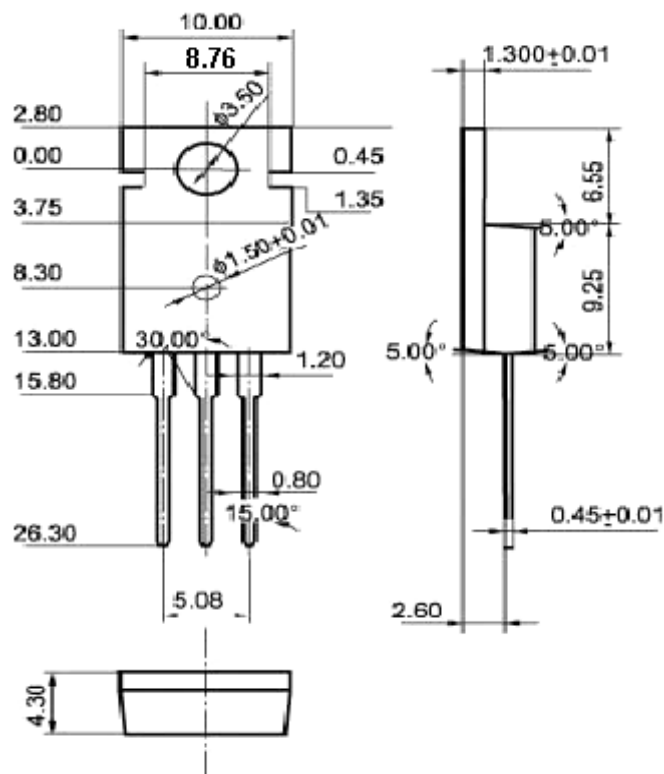


Fig.2 outline dimensions (unindicated tolerance:  $\pm 0.10$  mm)

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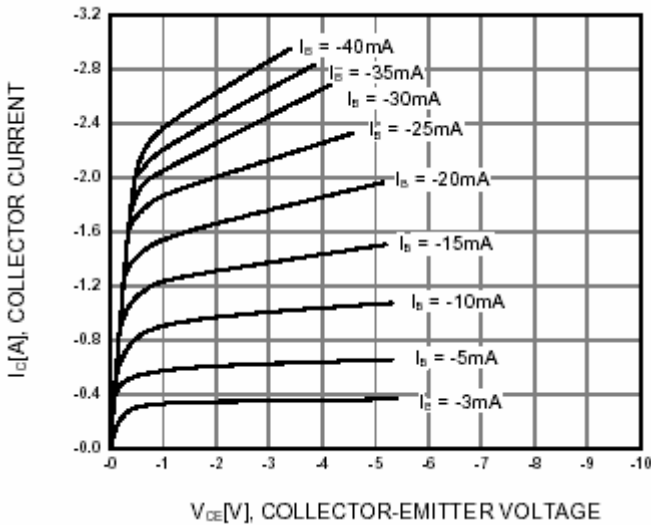


Fig.3 Static Characteristic

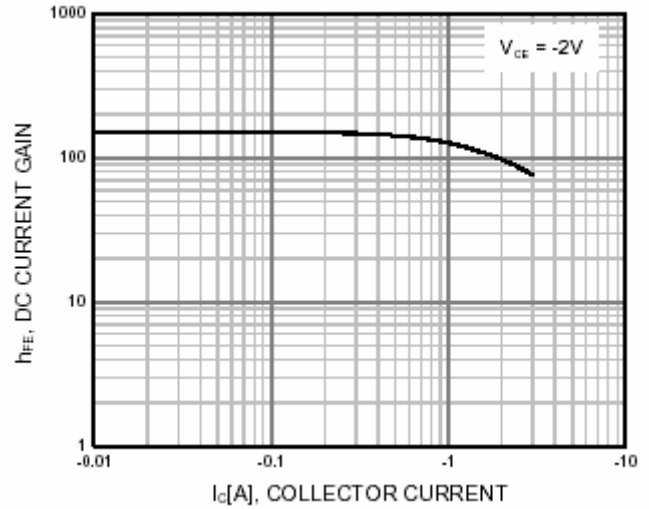


Fig.4 DC current Gain

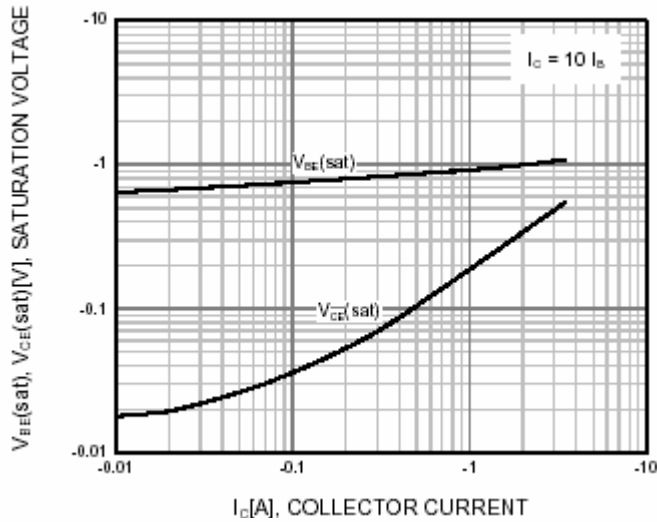


Fig.5 Base-Emitter Saturation Voltage  
Collector-Emitter Saturation Voltage

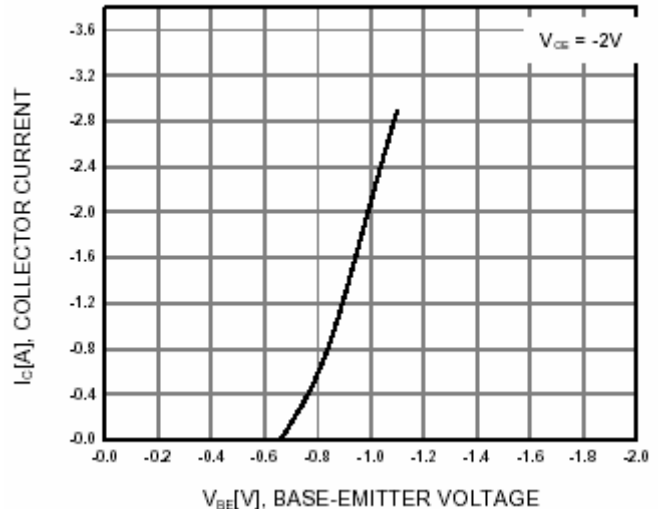


Fig.6 Base-Emitter On Voltage

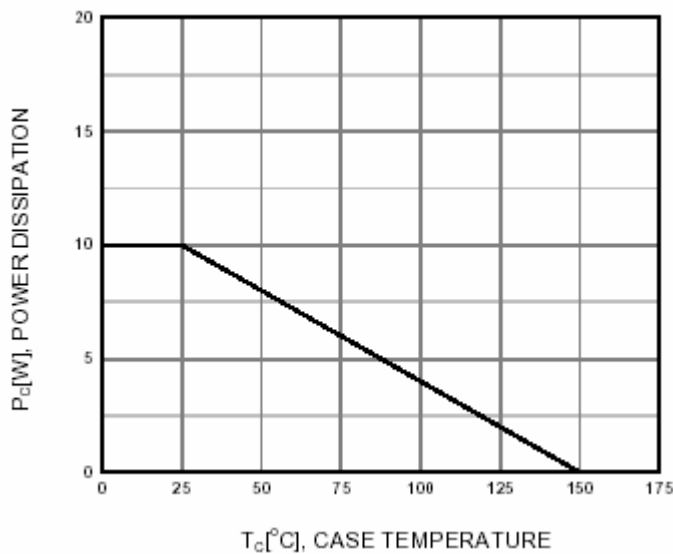


Fig.7 Power Derating

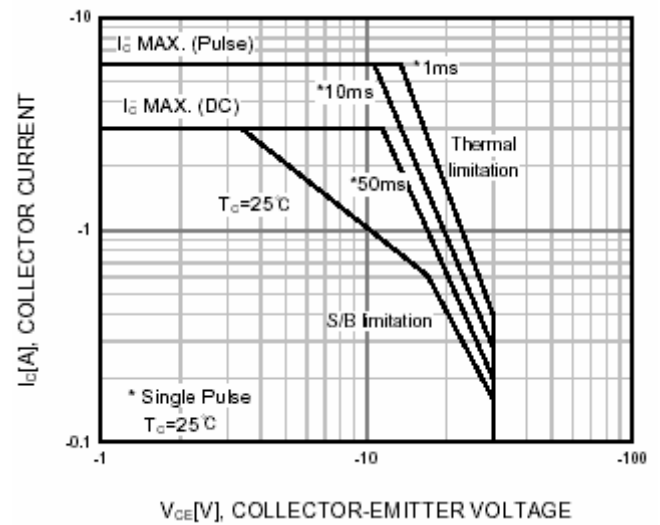


Fig.8 Safe Operating Area