

Silicon NPN Power Transistors

2SC1173

DESCRIPTION

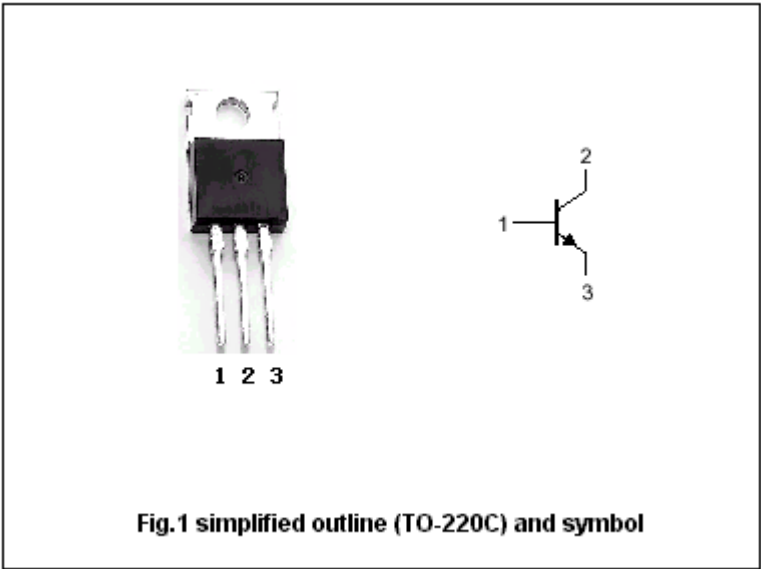
- With TO-220 package
- Complement to type 2SA473
- Collector current : $I_C=3A$
- Collector dissipation: $P_C=10W@T_C=25^{\circ}C$

APPLICATIONS

- Low frequency power amplifier
- Power regulator

PINNING

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



Absolute maximum ratings ($T_a=25^{\circ}C$)

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_j=25°C unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V _{CEO}	Collector-emitter breakdown voltage	I _C =10mA ; I _B =0	30			V
V _{CBO}	Collector-base breakdown voltage	I _C =0.5mA ; I _E =0	30			V
V _{EBO}	Emitter-base breakdown voltage	I _E =1mA ; I _C =0	5			V
V _{CEsat}	Collector-emitter saturation voltage	I _C =2A I _B =0.2A			0.8	V
V _{BE}	Base-emitter on voltage	I _C =0.5A ; V _{CE} =2V			1.0	V
I _{CBO}	Collector cut-off current	V _{CB} =20V; I _E =0			1.0	μA
I _{EBO}	Emitter cut-off current	V _{EB} =5V; I _C =0			1.0	μA
h _{FE-1}	DC current gain	I _C =0.5A ; V _{CE} =2V	70		240	
h _{FE-2}	DC current gain	I _C =2.5A ; V _{CE} =2V	25			
C _{OB}	Output capacitance	I _E =0; V _{CB} =10V; f=1MHz		35		pF
f _T	Transition frequency	I _C =0.5A ; V _{CE} =2V		100		MHz

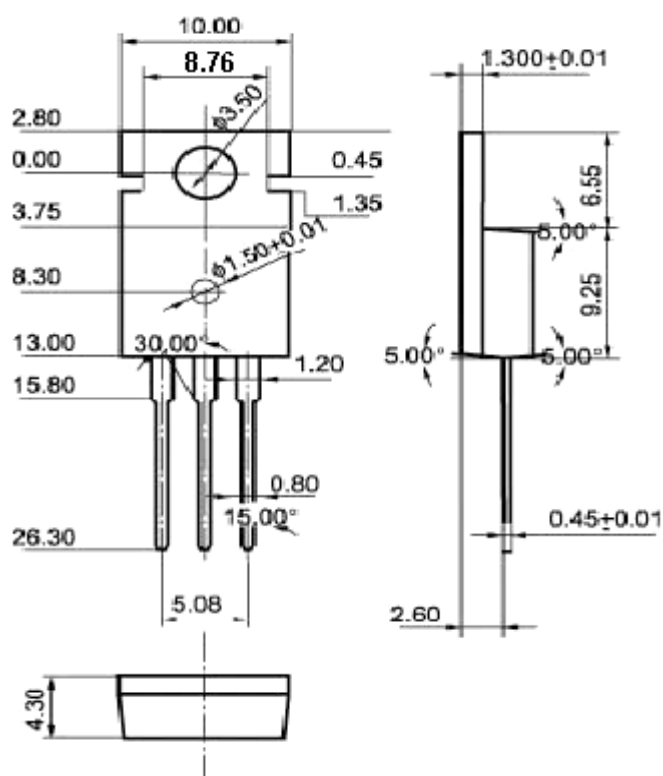
◆ h_{FE-1} classifications

O	Y
70-140	120-240

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PACKAGE OUTLINE

Fig.2 outline dimensions (unindicated tolerance: ± 0.10 mm)