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?

APPLICATIONS

·Low frequency power amplifier
·Power regulator

PINNING

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

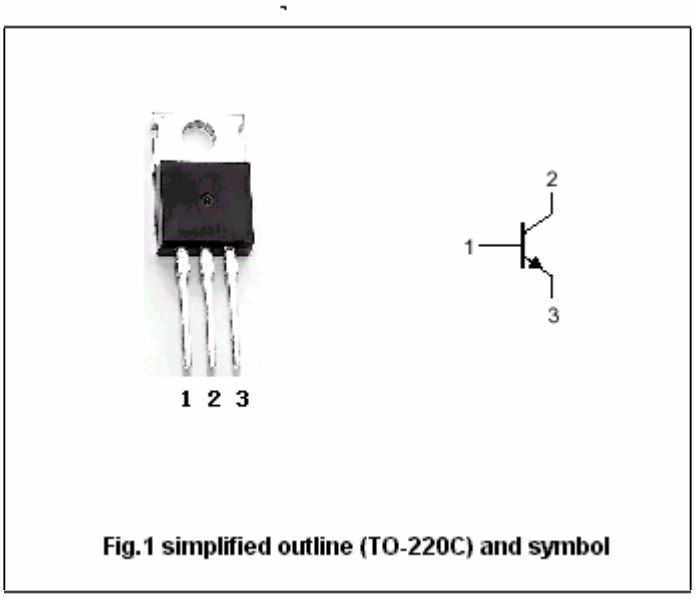

Fig.1 simplified outline (TO-220C) and symbol

Absolute maximum ratings (Ta=25?)

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?	10	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
$V_{(BR)CEO}$	Collector-emitter breakdown voltage	I_C=10mA ;I_B=0	30			V
$V_{(BR)CBO}$	Collector-base breakdown voltage	I_C=0.5mA ;I_E=0	30			V
$V_{(BR)EBO}$	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

u **h_{FE-1} classifications**

O	Y
70-140	120-240

PACKAGE OUTLINE

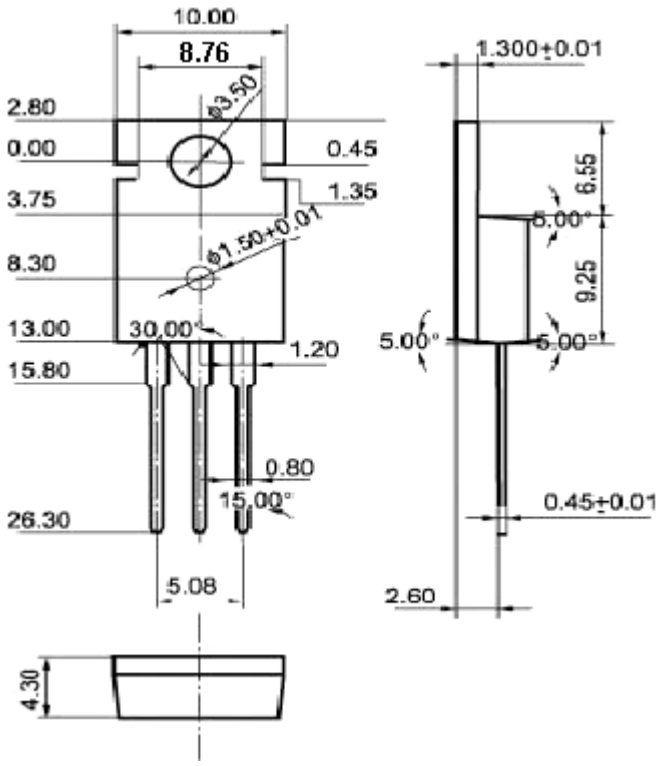

Fig.2 outline dimensions (unindicated tolerance:±0.10 mm)