Silicon NPN Power Transistors 2SC1985 2SC1986

DESCRIPTION

·With TO-220 package
·Complement to type 2SA770/771
·Low collector saturation voltage

APPLICATIONS

·For general and industrial purpose applications

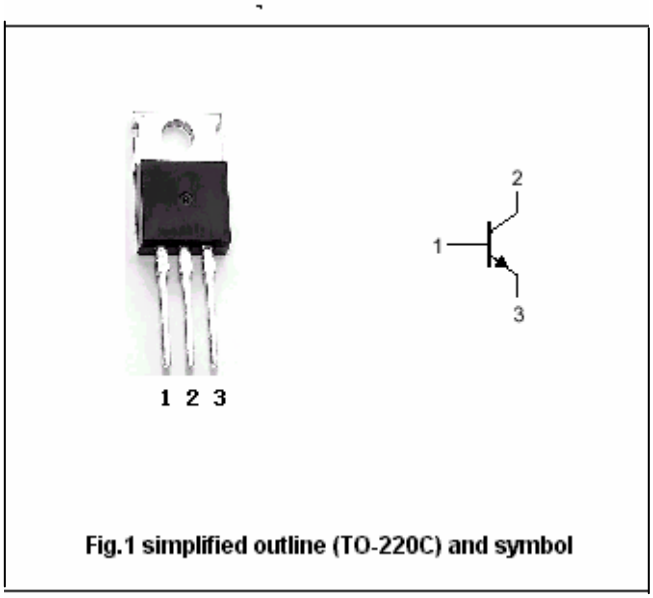

Fig.1 simplified outline (TO-220C) and symbol

PINNING

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

Absolute maximum ratings(Ta=25□)

SYMBOL	PARAMETER		CONDITIONS	VALUE	UNIT
V_{CBO}	Collector-base voltage	2SC1985	Open emitter	80	V
		2SC1986		100	
V_{CEO}	Collector-emitter voltage	2SC1985	Open base	60	V
		2SC1986		80	
V_{EBO}	Emitter-base voltage		Open collector	6	V
I_C	Collector current			6	A
I_B	Base current			3	A
P_C	Collector power dissipation		T_C=25□	40	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	2SC1985	I_C=25mA ,I_B=0	60			V
		2SC1986		80			
V_{CEsat}	Collector-emitter saturation voltage		I_C=3A; I_B=0.3A			1.0	V
I_{CBO}	Collector cut-off current	2SC1985	V_{CB}=80V; I_E=0			1.0	mA
		2SC1986	V_{CB}=100V; I_E=0				
I_{EBO}	Emitter cut-off current		V_{EB}=6V; I_C=0			1.0	mA
h_{FE}	DC current gain		I_C=1A ; V_{CE}=4V	40			
f_T	Transition frequency		I_C=0.5A ; V_{CE}=12V		10		MHz

Switching times

t_r	Rise time	I_C=3A ; V_{CC}=9V I_{B1}=-I_{B2}=0.3A;R_L=3Ω		1.1		μs
t_{stg}	Storage time			1.8		μs
t_f	Fall time			0.55		μs

PACKAGE OUTLINE

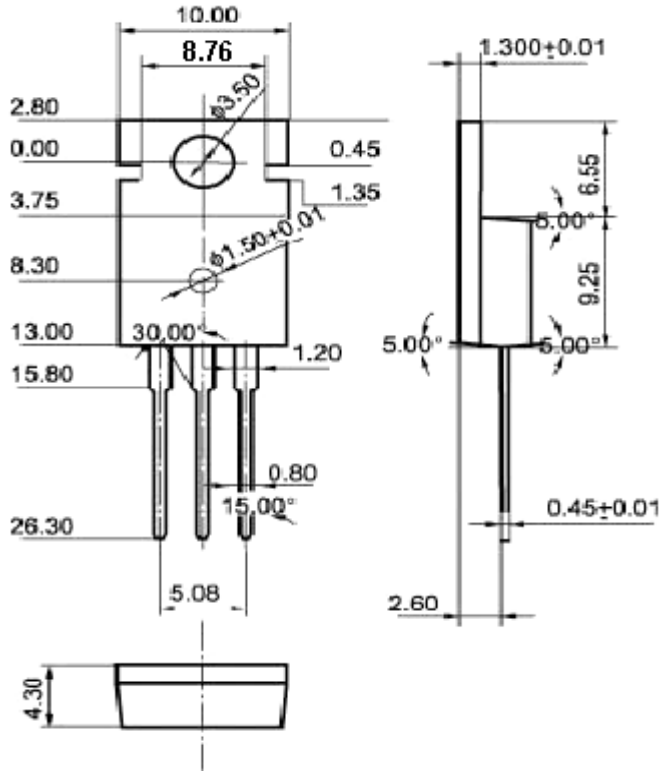

Fig.2 Outline dimensions(unindicated tolerance:±0.10 mm)