Silicon NPN Power Transistors 2SD880

DESCRIPTION

- With TO-220C package
- Complement to type 2SB834
- Low collector saturation voltage

APPLICATIONS

- Designed for use in audio frequency power amplifier applications

PINNING

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

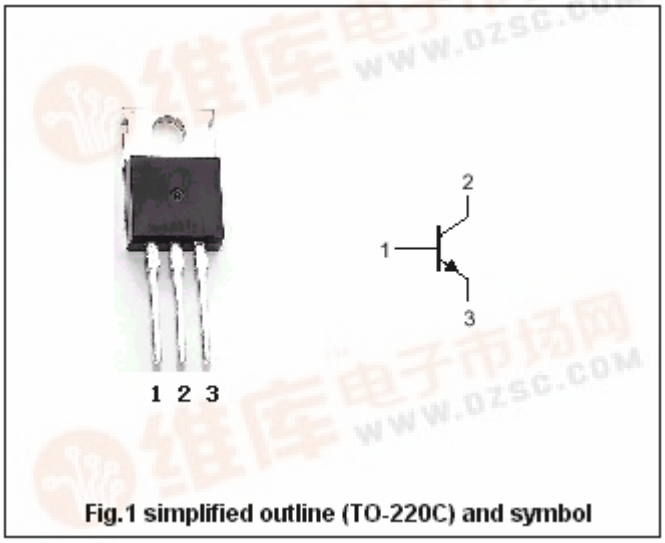

Fig.1 simplified outline (TO-220C) and symbol

Absolute maximum ratings(Ta=25℃)

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
V_{CBO}	Collector-base voltage	Open emitter	60	V
V_{CEO}	Collector-emitter voltage	Open base	60	V
V_{EBO}	Emitter-base voltage	Open collector	7	V
I_C	Collector current		3	A
I_{CM}	Collector current-Peak		6	A
I_B	Base current		0.5	A
P_C	Collector dissipation	T_C=25℃	30	W
T_j	Junction temperature		150	℃
T_{stg}	Storage temperature		-50~150	℃

THERMAL CHARACTERISTICS

SYMBOL	CHARACTERISTICS	MAX	UNIT
R θ jc	Thermal resistance junction to case	4.16	℃/W

Silicon NPN Power Transistors 2SD880

CHARACTERISTICS

Tj=25℃ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{(BR)CEO}$	Collector-emitter breakdown voltage	I_C=50mA ;I_B=0	60			V
$V_{(BR)EBO}$	Emitter-base breakdown voltage	I_E=1mA ;I_C=0	7			V
V_{CEsat}	Collector-emitter saturation voltage	I_C=3A; I_B=0.3A			1.0	V
V_{BE}	Base-emitter on voltage	I_C=0.5A ; V_{CE}=5V			1.0	V
I_{CBO}	Collector cut-off current	V_{CB}=60V; I_E=0			100	μA
I_{EBO}	Emitter cut-off current	V_{EB}=7V; I_C=0			100	μA
h_{FE}	DC current gain	I_C=0.5A ; V_{CE}=5V	60		300	
f_T	Transition frequency	I_C=0.5A ; V_{CE}=5V;f=1MHz		3		MHz
Switching times						
t_{on}	Turn-on time	I_C=10I_{B1}=-10I_{B2}=2A V_{CC}=30V PW=30μs			1.2	μs
t_s	Storage time				2.0	μs
t_f	Fall time				1.1	μs

◆ h_{FE} Classifications

O	Y	GR
60-120	100-200	150-300

Silicon NPN Power Transistors 2SD880

PACKAGE OUTLINE

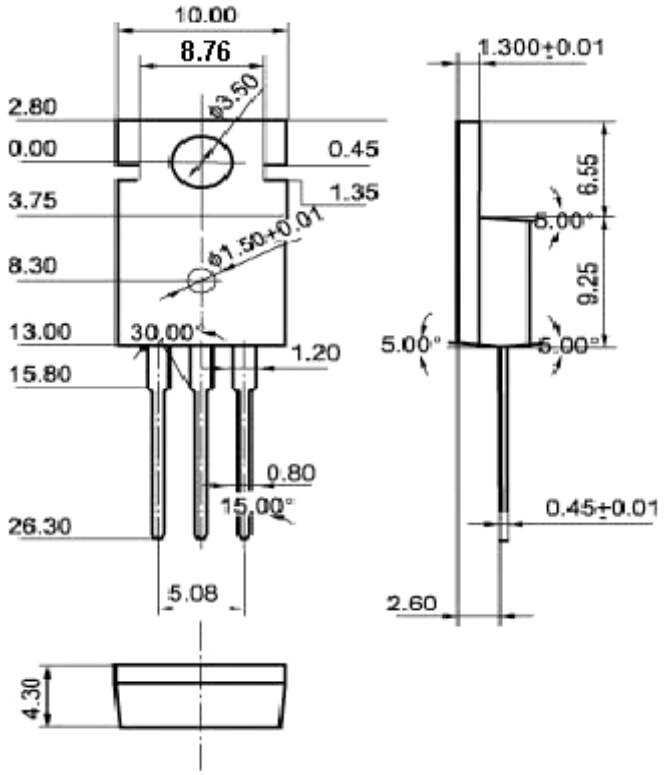

Fig.2 Outline dimensions (unindicated tolerance:±0.10mm)