DESCRIPTION

- ·With TO-220F package
- ·Complement to type 2SD2012
- ·Low collector saturation voltage:
  $V_{CE(SAT)}$=-1.5V(Max) at I_C=-2A,I_B=-0.2A
- ·Collector power dissipation:
  P_C=25W(T_C=25℃)

APPLICATIONS

- ·Audio frequency power amplifier

PINNING

PIN	DESCRIPTION
1	Base
2	Collector
3	Emitter

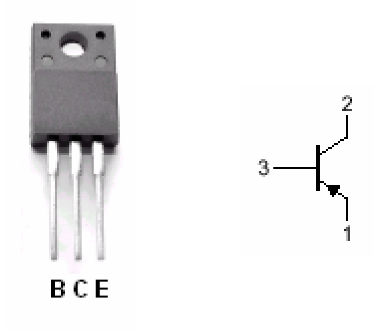

Fig.1 simplified outline (TO-220F) and symbol

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_B	Base current		-0.5	A
P_C	Collector dissipation	T_a=25℃	2.0	W
		T_C=25℃	25	
T_j	Junction temperature		150	℃
T_{stg}	Storage temperature		-55~150	℃

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_{CEsat}	Collector-emitter saturation voltage	I_C=-2A ;I_B=-0.2A		-1.0	-1.5	V
V_{BE}	Base-emitter voltage	I_C=-0.5A;V_{CE}=-5V		-0.75	-1.0	V
I_{CBO}	Collector cut-off current	V_{CB}=-60V; I_E=0			-10	μA
I_{EBO}	Emitter cut-off current	V_{EB}=-7V; I_C=0			-10	μA
h_{FE-1}	DC current gain	I_C=-0.5A ; V_{CE}=-5V	100		320	
h_{FE-2}	DC current gain	I_C=-2A ; V_{CE}=-5V	15			
f_T	Transition frequency	I_C=-0.5A ; V_{CE}=-5V		9		MHz
C_{OB}	Collector output capacitance	I_E=0; f=1MHz;V_{CB}=-10V		50		pF

PACKAGE OUTLINE

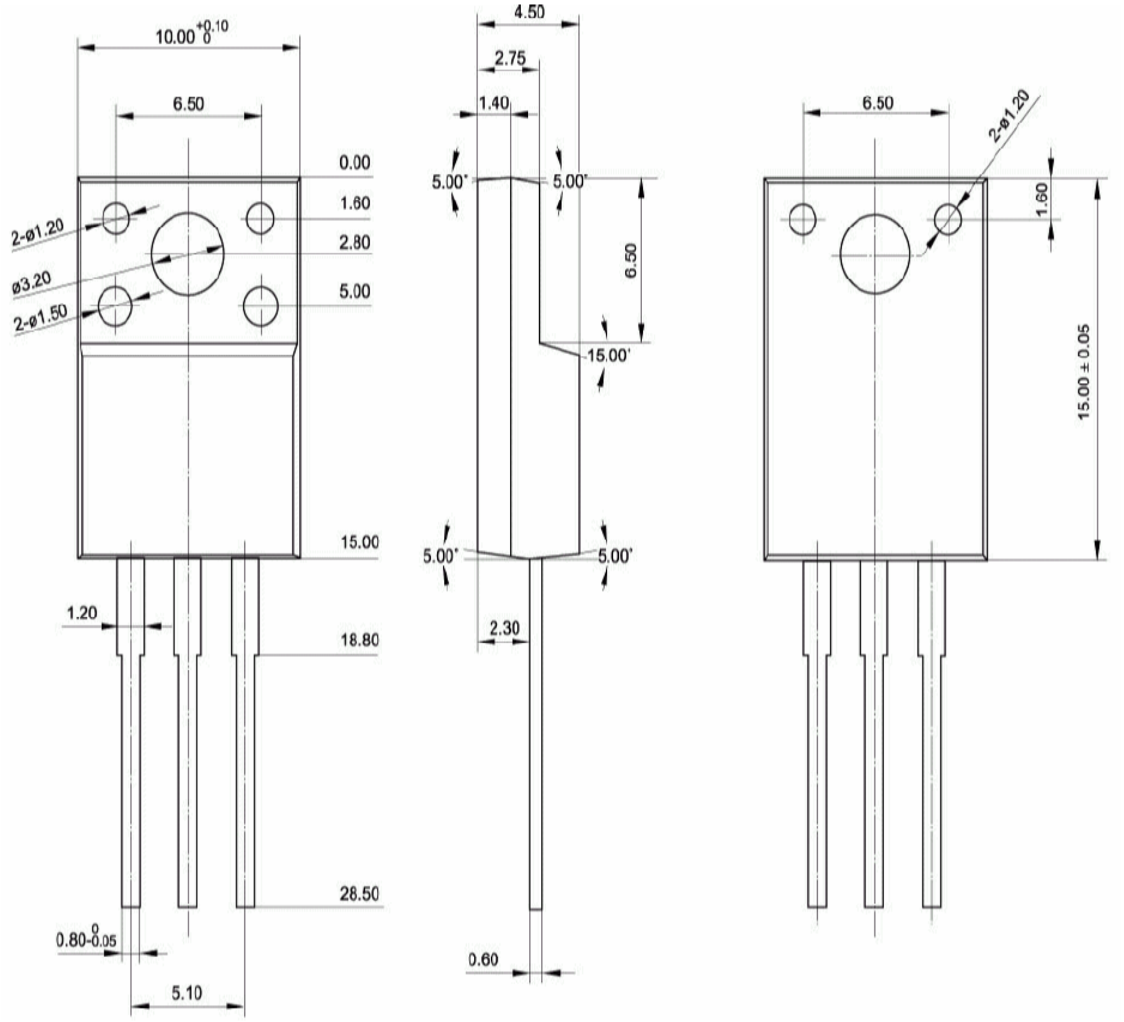

Fig.2 Outline dimensions

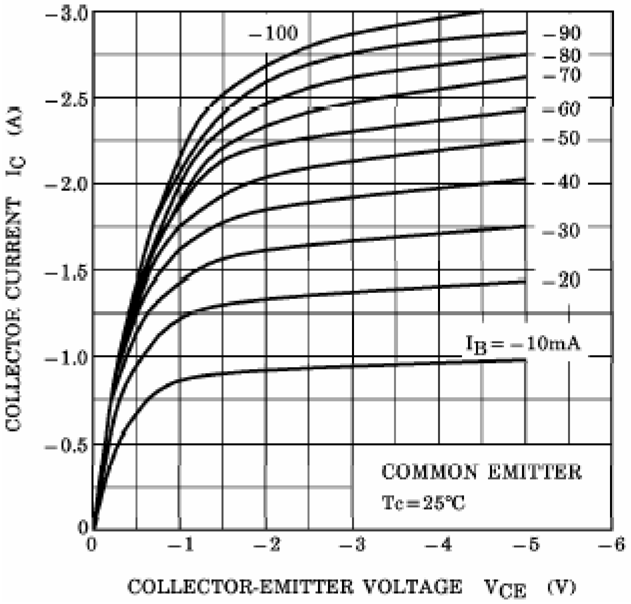

Fig.3 Static Characteristic

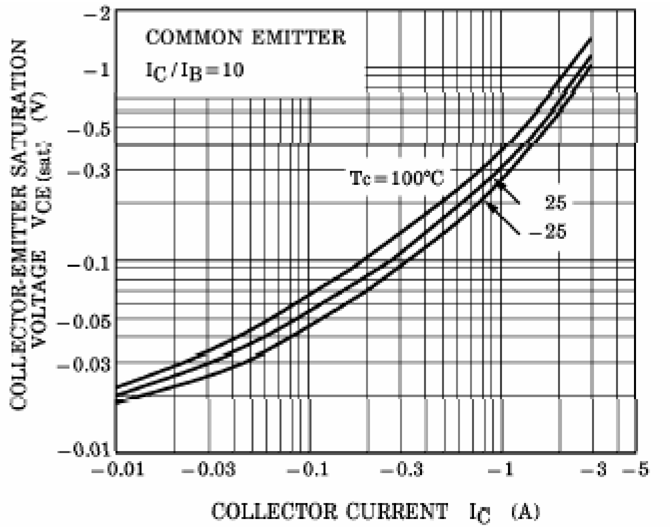

Fig.4 Collector-Emitter Saturation Voltage

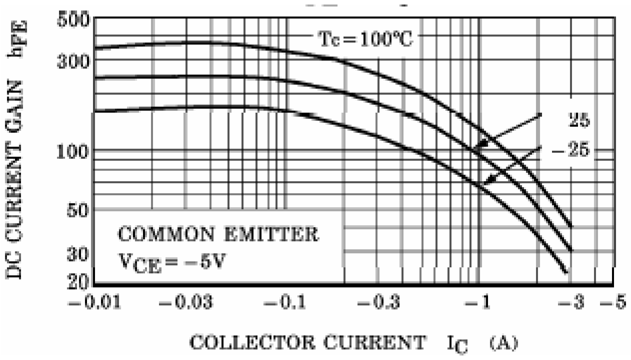

Fig.5 DC current Gain

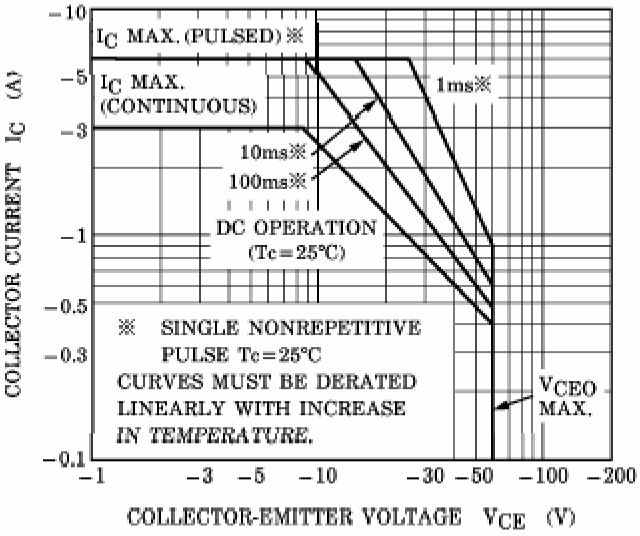

Fig.6 Safe Operating Area