Pb Free Plating Product

2SA1837

20 Watt Silicon Epitaxial Planar Process PNP Power Transistor

DESCRIPTION

- With TO-220F package outline
- Complement to type 2SC4793

APPLICATIONS

- Power amplifier applications
- Recommended for Driver Stage Amplifier Applications

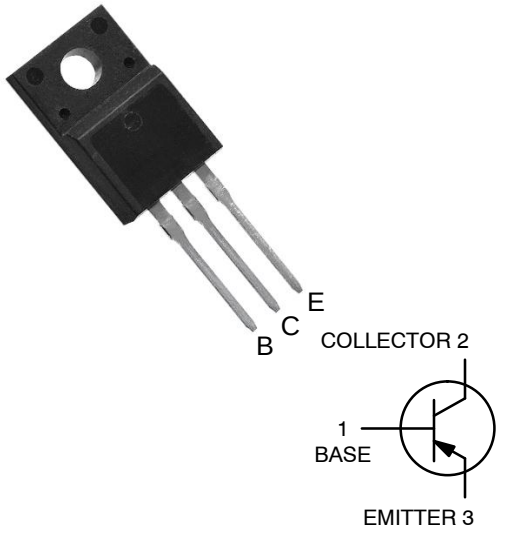


Fig.1 simplified outline (TO-220F) and symbol

PINNING

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

ABSOLUTE MAXIMUM RATINGS (Ta = 25℃)

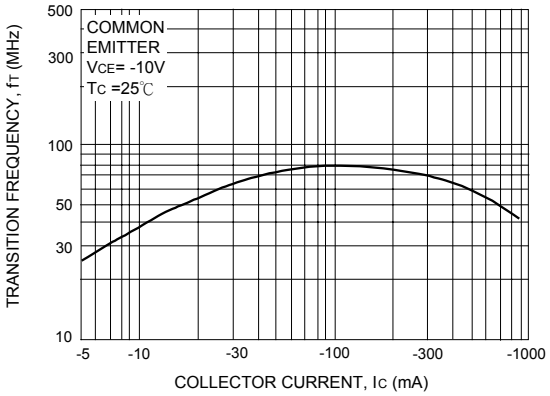
PARAMETER	SYMBOL	RATINGS	UNIT
Collector-Base Voltage	V_{CBO}	-230	V
Collector-Emitter Voltage	V_{CEO}	-230	V
Emitter-Base Voltage	V_{EBO}	-5	V
Collector Current	I_C	-1	A
Base Current	I_B	-0.1	A
Collector Power Dissipation Ta=25℃ Tc=25℃	P_C	 2.0 20	W
Junction Temperature	T_J	150	℃
Storage Temperature Range	Tstg	-55 ~ 150	℃

ELECTRICAL CHARACTERISTICS (Ta=25℃)

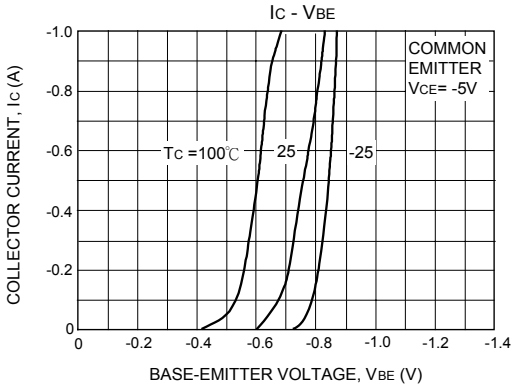
PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Collector-Emitter Breakdown Voltage	$V_{(BR)\ CEO}$	I_C= -10mA, I_B=0	-230			V
Collector Cut-off Current	I_{CBO}	V_{CB} = -230V, I_E=0			-1.0	μA
Emitter Cut-off Current	I_{EBO}	V_{EB}= -5V, I_C=0			-1.0	μA
DC Current Gain	h_{FE}	V_{CE}= -5V, I_C= -100mA	100		320	
Collector-Emitter Saturation Voltage	$V_{CE\ (sat)}$	I_C= -500mA, I_B= -50mA			-1.5	V
Base -Emitter Voltage	V_{BE}	V_{CE}= -5V, I_C= -500mA			-1.0	V
Transition Frequency	fT	V_{CE}= -10V, I_C= -100mA		70		MHz
Collector Output Capacitance	Cob	V_{CB}= -10V, I_C=0, f=1MHz		30		pF

TYPICAL CHARACTERISTICS

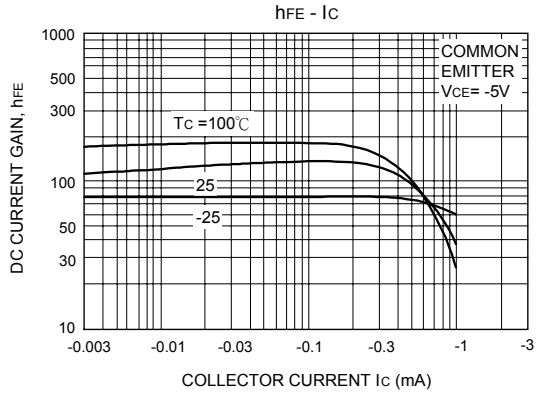
fT - IC



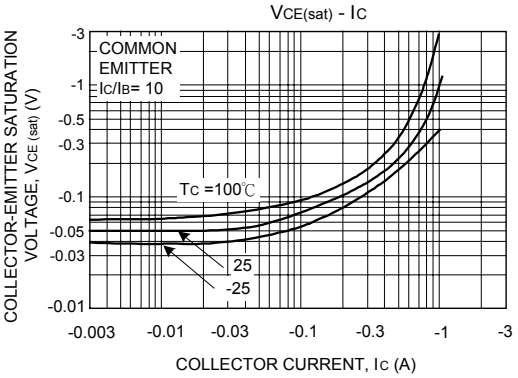
IC - VBE



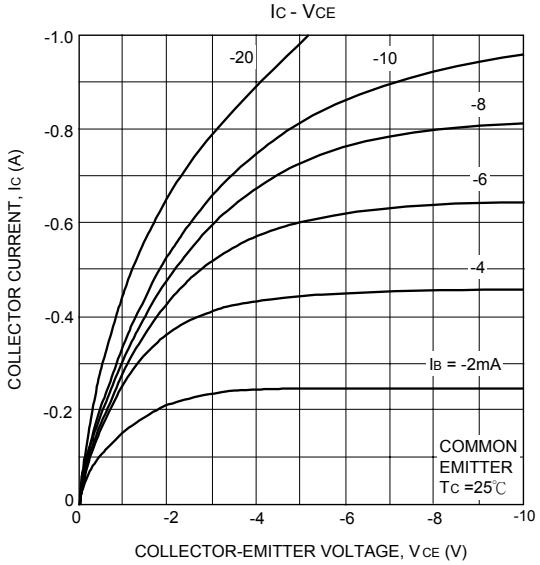
hFE - IC



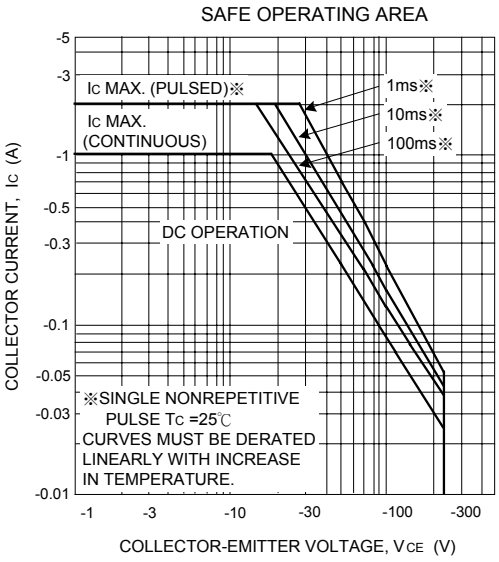
VCE(sat) - IC



IC - VCE

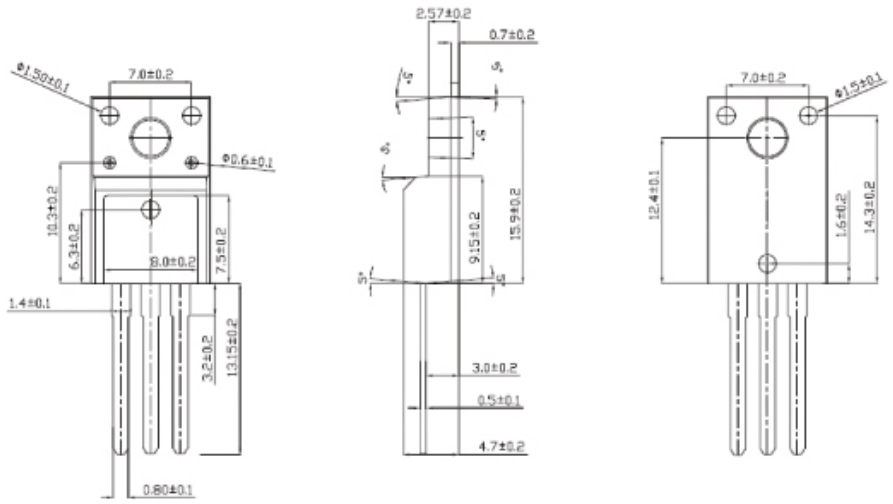


SAFE OPERATING AREA



Mechanical Dimensions

TO-220F(ITO-220AB)



Dimensions in Millimeters