

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

PINNING

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

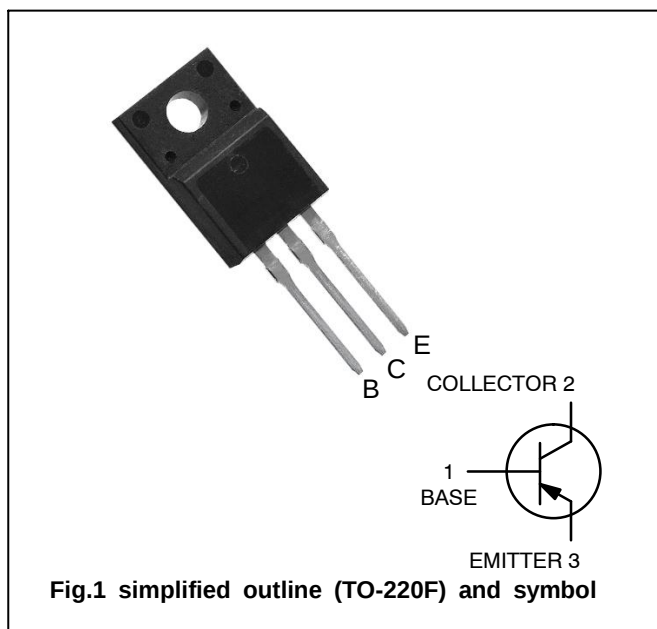


Fig.1 simplified outline (TO-220F) and symbol

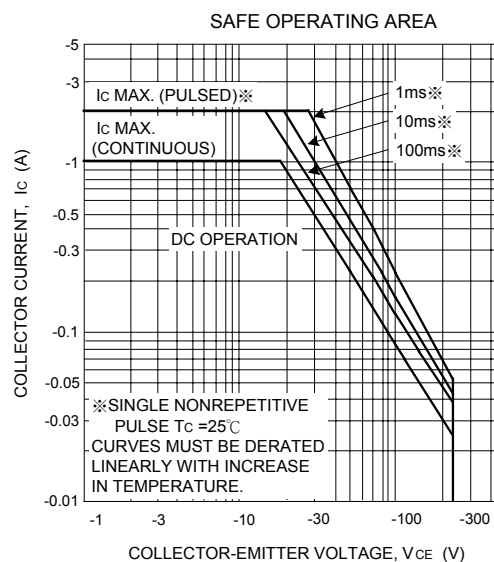
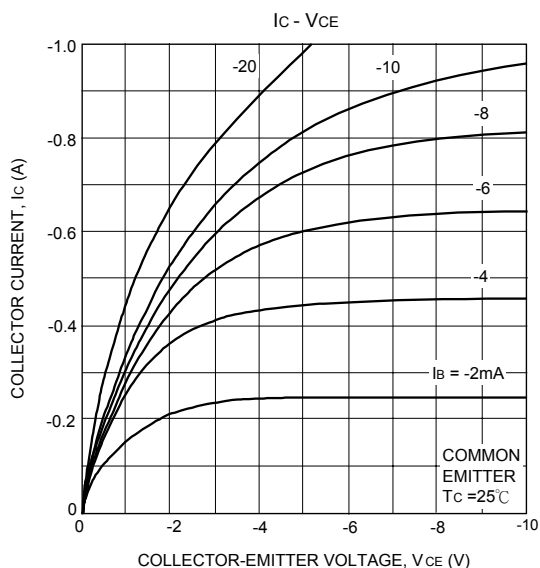
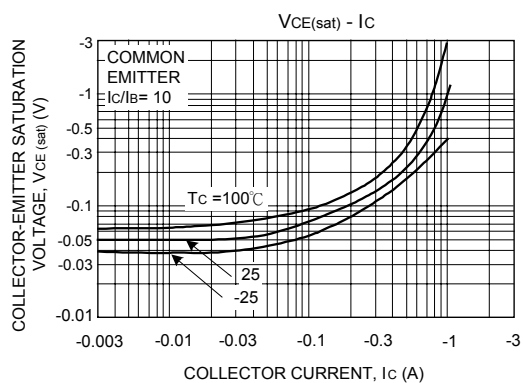
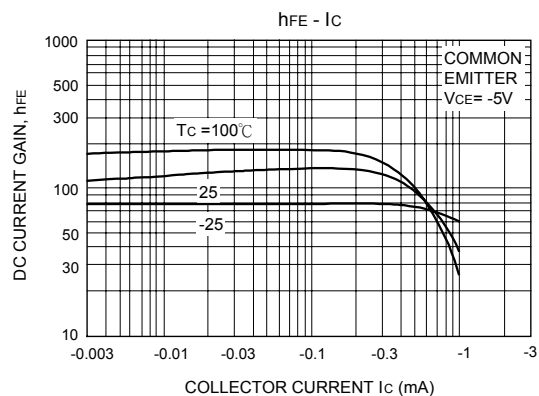
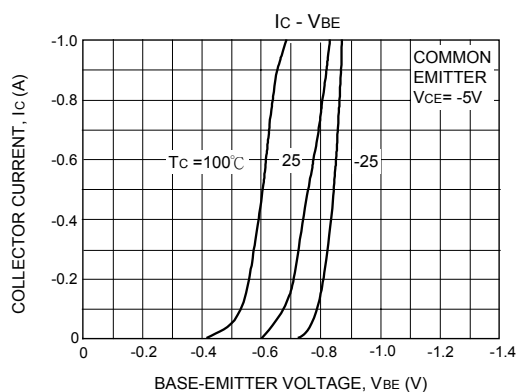
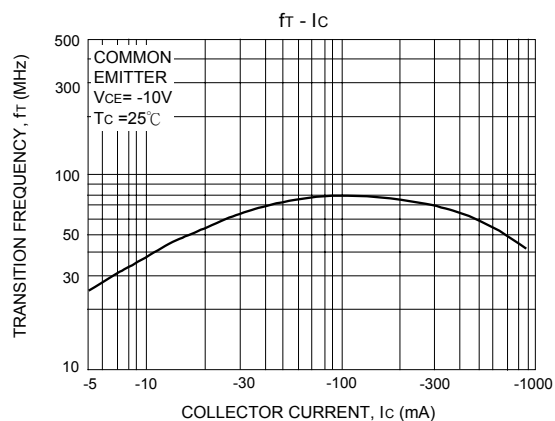
ABSOLUTE MAXIMUM RATINGS ($T_a = 25^\circ\text{C}$)

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 $T_a=25^\circ\text{C}$ $T_c=25^\circ\text{C}$	P_C	2.0 20	W
Junction Temperature	T_J	150	$^\circ\text{C}$
Storage Temperature Range	T_{stg}	-55 ~ 150	$^\circ\text{C}$

ELECTRICAL CHARACTERISTICS ($T_a=25^\circ\text{C}$)

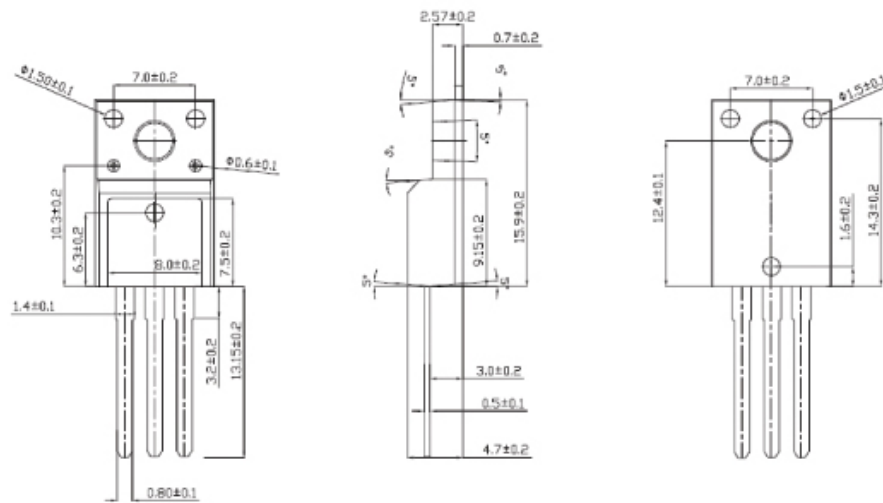
PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Collector-Emitter Breakdown Voltage	$V_{(BR)CEO}$	$I_C = -10\text{mA}$, $I_B = 0$	-230			V
Collector Cut-off Current	I_{CBO}	$V_{CB} = -230\text{V}$, $I_E = 0$			-1.0	μA
Emitter Cut-off Current	I_{EBO}	$V_{EB} = -5\text{V}$, $I_C = 0$			-1.0	μA
DC Current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

TYPICAL CHARACTERISTICS



Mechanical Dimensions

TO-220F(ITO-220AB)



Dimensions in Millimeters