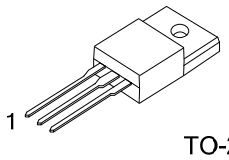
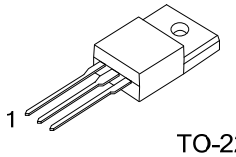
2SA1837

PNP EPITAXIAL SILICON TRANSISTOR

POWER AMPLIFIER APPLICATIONS DRIVER STAGE AMPLIFIER APPLICATIONS



TO-220F



TO-220F1

■ FEATURES

* High Transition Frequency: f_T=70MH$_Z$ (Typ.)
* Complementary to UTC **2SC4793**

■ ORDERING INFORMATION

Order Number		Package	Pin Assignment			Packing
Lead Free	Halogen-Free		1	2	3	
2SA1837L-TF3-T	2SA1837G-TF3-T	TO-220F	B	C	E	Tube
2SA1837L-TF1-T	2SA1837G-TF1-T	TO-220F1	B	C	E	Tube

Note: Pin Assignment: B: Base C: Collector E: Emitter

2SA1837L-TF3-T
(1)Packing Type
(2)Package Type
(3)Lead Plating

(1) T: Tube
(2) TF3: TO-220F, TF1: TO-220F1
(3) L: Lead Free Plating, G: Halogen Free

■ ABSOLUTE MAXIMUM RATING (T_A=25°C, unless otherwise specified)

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°C	P_C	2	W
	T_C=25°C		20	
Junction Temperature		T_J	150	°C
Storage Temperature Range		T_{STG}	-55 ~ 150	°C

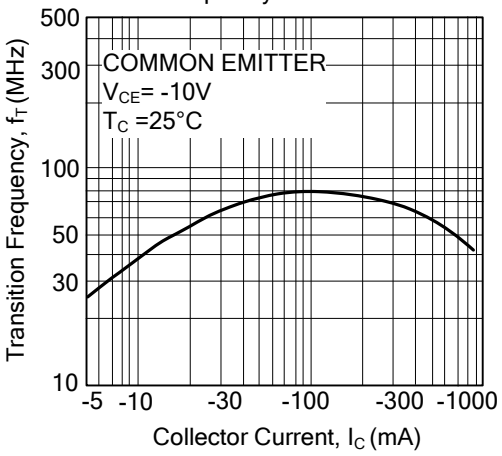
Note: Absolute maximum ratings are those values beyond which the device could be permanently damaged. Absolute maximum ratings are stress ratings only and functional device operation is not implied.

■ ELECTRICAL CHARACTERISTICS (T_A=25°C, unless otherwise specified)

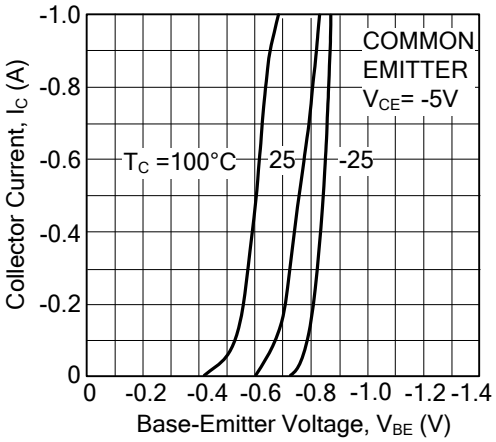
PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Collector-Emitter Breakdown Voltage	BV_{CEO}	I_C= -10mA, I_B=0	-230			V
Collector Cut-off Current	I_{CBO}	V_{CB} = -230V, I_E=0			-1.0	μA
Emitter Cut-off Current	I_{EBO}	V_{EB}= -5V, I_C=0			-1.0	μA
DC Current Gain	h_{FE}	V_{CE}= -5V, I_C= -100mA	100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

■ TYPICAL CHARACTERISTICS

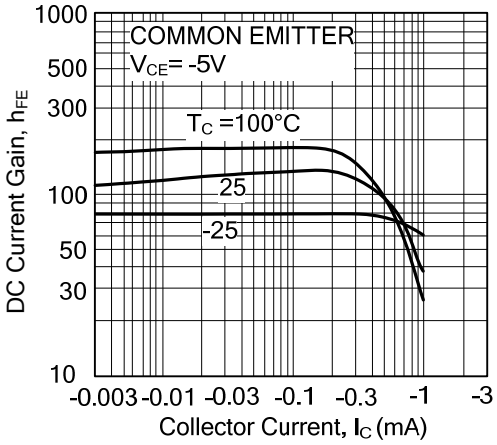
Transition Frequency vs. Collector Current



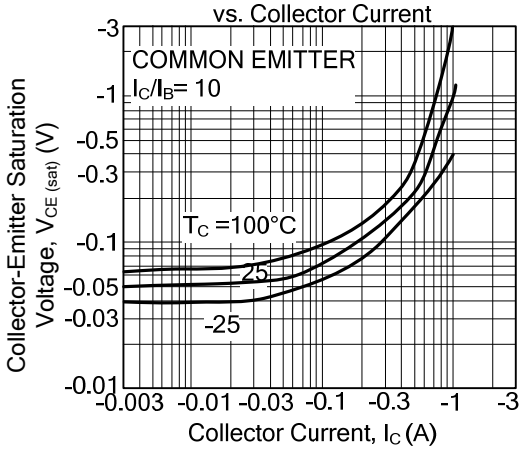
Collector Current vs. Base-Emitter Voltage



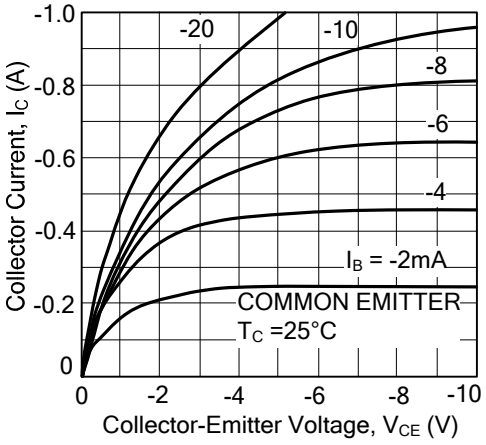
DC Current Gain vs. Collector Current



Collector-Emitter Saturation Voltage vs. Collector Current



Collector Current vs. Collector-Emitter Voltage



Safe Operating Area