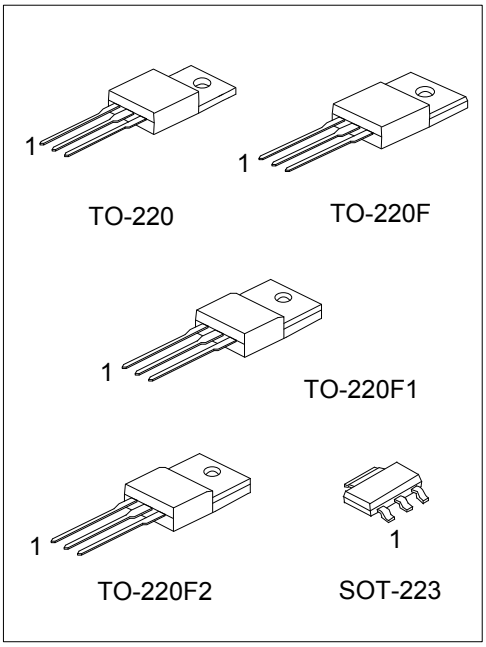
2SA1837

PNP EPITAXIAL SILICON TRANSISTOR

POWER AMPLIFIER APPLICATIONS DRIVER STAGE AMPLIFIER APPLICATIONS



■ FEATURES

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

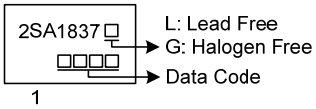
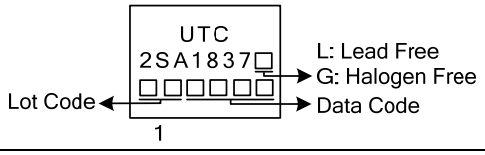
■ ORDERING INFORMATION

Order Number		Package	Pin Assignment			Packing
Lead Free	Halogen-Free		1	2	3	
2SA1837L-AA3-T	2SA1837G-AA3-T	SOT-223	B	C	E	Tape Reel
2SA1837L -TA3-T	2SA1837G-TA3-T	TO-220	B	C	E	Tube
2SA1837L-TF1-T	2SA1837G-TF1-T	TO-220F1	B	C	E	Tube
2SA1837L-TF2-T	2SA1837G-TF2-T	TO-220F2	B	C	E	Tube
2SA1837L-TF3-T	2SA1837G-TF3-T	TO-220F	B	C	E	Tube

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

2SA1837G-AA3-R (1)Packing Type (2)Package Type (3)Green Package	(1) T: Tube, R: Tape Reel (2) AA3: SOT-223, TA3: TO-220, TF1: TO-220F1, TF2: TO-220F2, TF3: TO-220F (3) G: Halogen Free and Lead Free, L: Lead Free

■ MARKING

SOT-223	TO-220 / TO-220F / TO-220F1 / TO-220F2
	

■ 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	SOT-223	P_C	1	W
		TO-220 TO-220F TO-220F1 TO-220F2		2	W
	T_C=25°C	SOT-223		15	W
		TO-220 TO-220F TO-220F1 TO-220F2		20	W
Junction Temperature			T_J	+150	°C
Storage Temperature Range			T_{STG}	-55 ~ +150	°C

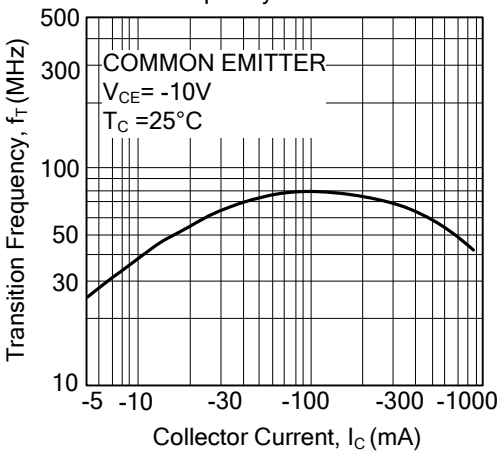
Note: Absolute maximum ratings are those values beyond which the device could be permanently damaged. Absolute maximum ratings are stress ratings only and functional device operation is not implied.

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

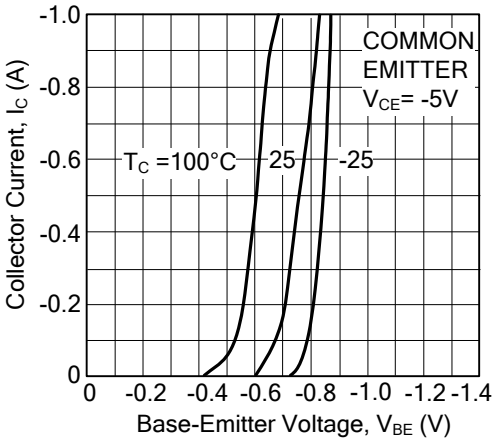
PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Collector-Emitter Breakdown Voltage	BV_{CEO}	I_C= -10mA, I_B=0	-230			V
Collector Cut-off Current	I_{CBO}	V_{CB} = -230V, I_E=0			-1.0	μA
Emitter Cut-off Current	I_{EBO}	V_{EB}= -5V, I_C=0			-1.0	μA
DC Current Gain	h_{FE}	V_{CE}= -5V, I_C= -100mA	100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

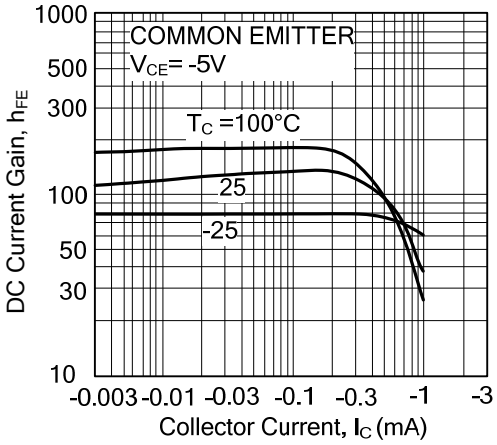
Transition Frequency vs. Collector Current



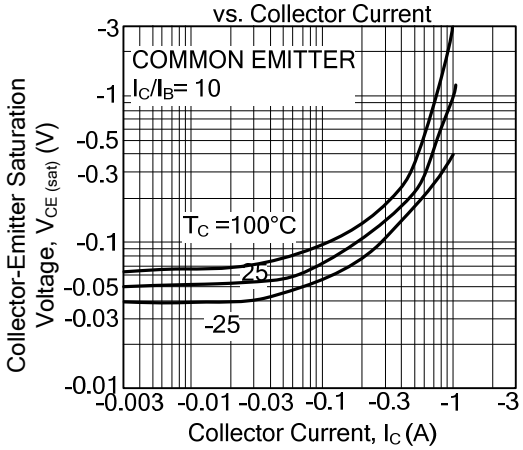
Collector Current vs. Base-Emitter Voltage



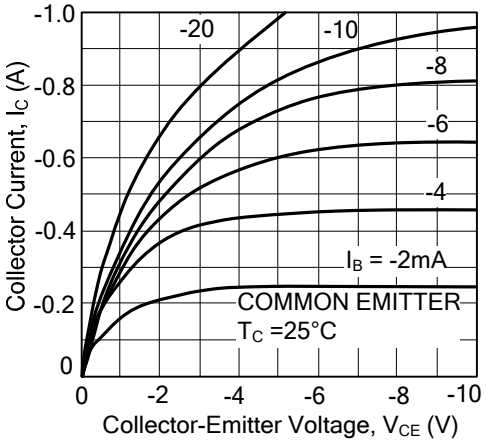
DC Current Gain vs. Collector Current



Collector-Emitter Saturation Voltage vs. Collector Current



Collector Current vs. Collector-Emitter Voltage



Safe Operating Area