

Silicon Epitaxial Base Mesa Transistor

TOP-3 Package (See Page 36 For Dimensions)

T-33-13
T-33-21

**2SA1061 (PNP)
2SC2485 (NPN)**

2SA1061 (PNP)

Absolute Maximum Ratings (Ta=25°C)

Item	Symbol	Rating	Unit
Collector-Base Voltage	-V _{CB0}	100	V
Collector-Emitter Voltage	-V _{CEO}	100	V
Emitter-Base Voltage	-V _{EB0}	5	V
Collector Current	-I _C	6	A
Peak Collector Current	-I _{CM}	10	A
Collector Power Dissipation	P _C *	70	W
Junction Temperature	T _J	150	°C
Storage Temperature	T _{stg}	-55~+150	°C

*T_C=25°C

High Power Audio Frequency Amplifier
Complementary Pair with 2SC2485

Feature:

- High collector power dissipation: 70W(T_C=25°C)

**h_{FE} Classification

h _{FE}	100~200	60~120	40~80
Class	P	Q	R

Electrical Characteristics (Ta=25°C)

Item	Symbol	Condition	min.	typ.	max.	Unit
Collector Cutoff Current	-I _{CB0}	-V _{CB} =100V, I _E =0			50	μA
Emitter Cutoff Current	-I _{EB0}	-V _{EB} =3V, I _C =0			50	μA
DC Current Gain	h _{FE1}	-V _{CE} =5V, -I _C =0.2A	20			
	h _{FE2} **	-V _{CE} =5V, -I _C =1.0A	40		220	V
	h _{FE3}	-V _{CE} =5V, -I _C =4A	20			
Base Emitter Voltage	-V _{BE}	-V _{CE} =5V, -I _C =4A			1.8	V
Collector-Emitter Saturation Voltage	-V _{CE(sat)}	-I _C =4A, -I _B =0.4A			2.0	V
Gain Bandwidth Product	f _T	-V _{CE} =5V, -I _C =0.5A		20		MHz

2SC2485 (NPN)

Absolute Maximum Ratings (Ta=25°C)

Item	Symbol	Rating	Unit
Collector-Base Voltage	V _{CB0}	100	V
Collector-Emitter Voltage	V _{CEO}	100	V
Emitter-Base Voltage	V _{EB0}	5	V
Collector Current	I _C	6	A
Peak Collector Current	I _{CM}	10	A
Collector Power Dissipation	P _C *	70	W
Junction Temperature	T _J	150	°C
Storage Temperature	T _{stg}	-55~+150	°C

*T_C=25°C

High Power Audio Frequency Amplifier
Complementary Pair with 2SA1061

Feature:

- High collector power dissipation: 70W(T_C=25°C)

**h_{FE} Classification

h _{FE}	100~200	60~120	40~80
Class	P	Q	R

Electrical Characteristics (Ta=25°C)

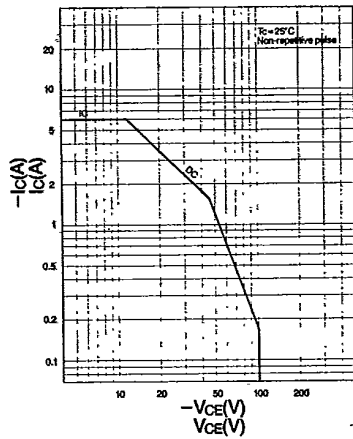
Item	Symbol	Condition	min.	typ.	max.	Unit
Collector Cutoff Current	I _{CB0}	V _{CB} =100V, I _E =0			50	μA
Emitter Cutoff Current	I _{EB0}	V _{EB} =3V, I _C =0			50	μA
DC Current Gain	h _{FE1}	V _{CE} =5V, I _C =0.2A	20			
	h _{FE2} **	V _{CE} =5V, I _C =1.0A	40		220	V
	h _{FE3}	V _{CE} =5V, I _C =4A	20			
Base Emitter Voltage	V _{BE}	V _{CE} =5V, I _C =4A			1.8	V
Collector-Emitter Saturation Voltage	V _{CE(sat)}	I _C =4A, I _B =0.4A			2.0	V
Gain Bandwidth Product	f _T	V _{CE} =5V, I _C =0.5A		20		MHz

T-33-13
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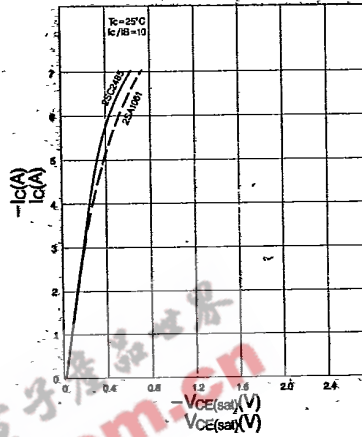
2SA1061 (PNP)
2SC2485 (NPN)

Typical Characteristics

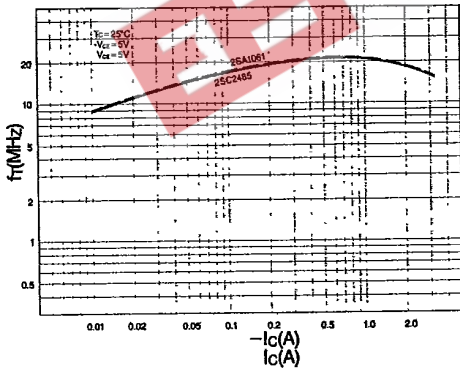
Area of Safe Operation (ASO) ($T_c=25^\circ\text{C}$)



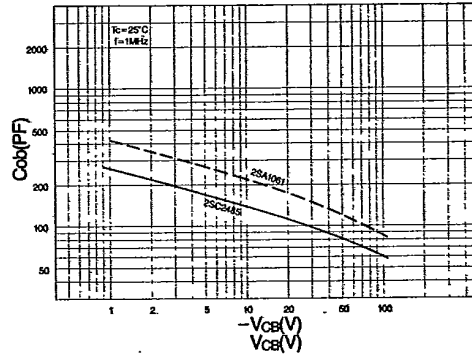
$V_{CE(sat)}$ vs. I_c characteristics



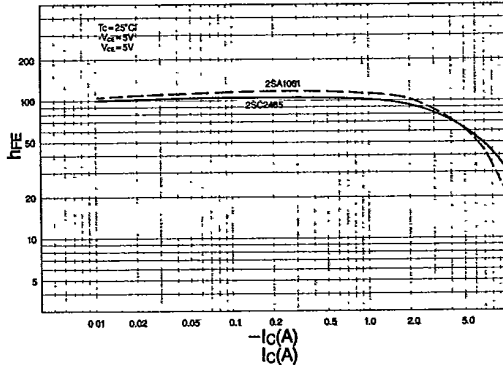
f_T vs. I_c characteristics



C_{ob} vs. V_{CB} characteristics



h_{FE} vs I_c characteristics



V_{BE} vs. I_c characteristics

