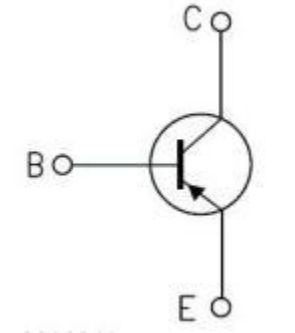
2SA1837

Power Amplifier Applications

- Complementary to 2SC4793
- High collector voltage:VCEO=-230V (min)

Note: Using continuously under heavy loads (e.g. the application of high temperature/current/voltage and the significant change in temperature, etc.) may cause this product to decrease in the reliability significantly even if the operating conditions (i.e. operating temperature/current/voltage, etc.) are within the absolute maximum ratings.



THUNDER TO-220F

Absolute Maximum Ratings(Tc=25℃):

Characteristics	Symbol	Rating	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	-0.2	A
Collector power dissipation (Tc=25℃)	P_C	50	W
Junction temperature	T_j	150	℃
Storage temperature range	T_{STG}	-55~150	℃

Thermal Characteristics

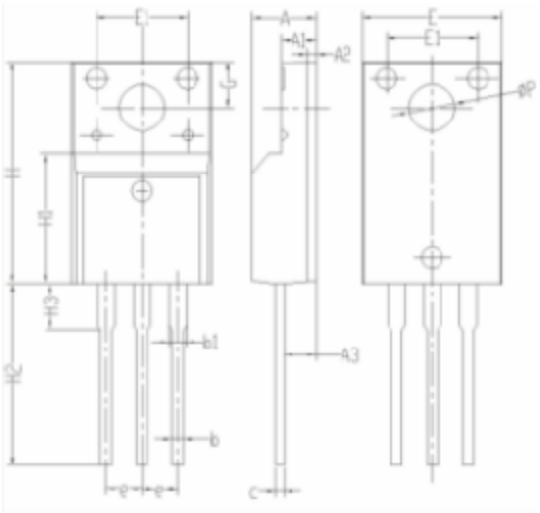
Symbol	Paramter	Typ	Units
$R_{\theta JC}$	Junction-to-Case	3.0	℃/W

Electrical Characteristics (Tc=25℃):

Characteristics	Symbol	Test Condition	Min	Typ	Max	Unit
Collector-Base Cut-off Current	I_{CBO}	V_{CB}=-230V,I_E=0			-1.0	uA
Emitter-Base Cut-off Current	I_{EBO}	V_{EB}=-5V,I_C=0			-1.0	uA
Collector-Emitter Breakdown Voltage	V_{CEO}	I_C=-1mA	-230			V
DC current gain	h_{FE}	I_C=-0.1A; V_{CE}=-5V	100		300	
Collector-emitter saturation voltage	V_{CEsat}	I_C=-0.5A; I_B=-0.05A			-0.5	V
Base-Emitter Saturation Voltage	V_{BEsat}	I_C=-0.5A,I_B=-0.05A			-1.4	V
Base-emitter voltage	V_{BE}	V_{CE}=-5V;I_C=-0.5A			-1.5	V
Transition frequency	f_T	V_{CE}=-10V;I_C=-100mA		40		MHz

Package Information

TO-220F PACKAGE



Symbol	Dimensions(millimeters)	
	Min.	Max.
A	4.35	4.75
A1	2.30	2.70
A2	0.40	0.80
A3	2.10	2.50
b	0.60	1.00
b1	1.00	1.40
c	0.30	0.70
e	2.30	2.70
E	9.80	10.2
E1	6.30	6.70
H	15.6	16.0
H1	8.80	9.20
H2	12.9	13.5
H3	3.10	3.50
G	3.10	3.50
ΦP	3.10	3.50

Notice

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