

Silicon NPN Epitaxial Planar Transistor (Complement to type 2SA1216)

Application : Audio and General Purpose

Absolute maximum ratings (Ta=25°C)

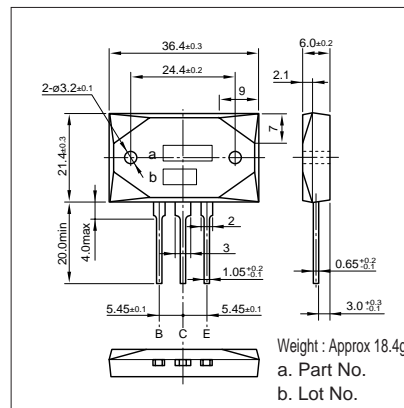
Symbol	Ratings	Unit
V _{CB0}	180	V
V _{CEO}	180	V
V _{EBO}	5	V
I _C	17	A
I _B	5	A
P _C	200(T _C =25°C)	W
T _j	150	°C
T _{stg}	-55 to +150	°C

Electrical Characteristics (Ta=25°C)

Symbol	Conditions	Ratings	Unit
I _{CB0}	V _{CB} =180V	100max	A
I _{EBO}	V _{EB} =5V	100max	A
V(BR)CEO	I _C =25mA	180min	V
h _{FE}	V _{CE} =4V, I _C =8V	30min*	
V _{CE(sat)}	I _C =8A, I _B =0.8A	2.0max	V
f _r	V _{CE} =12V, I _E =-2A	50typ	MHz
COB	V _{CB} =10V, f=1MHz	250typ	pF

*h_{FE} Rank \bar{O} (30 to 60), Y(50 to 100), P(70 to 140), G(90 to 180)

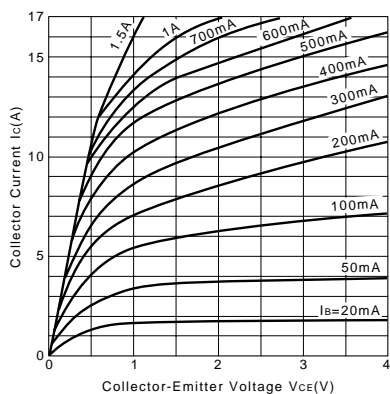
External Dimensions MT-200



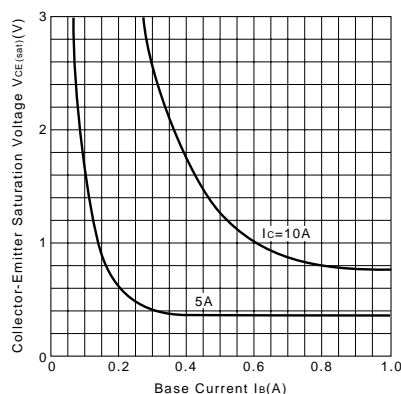
Typical Switching Characteristics (Common Emitter)

V _{CC} (V)	R _L (Ω)	I _C (A)	V _{B2} (V)	I _{B1} (A)	I _{B2} (A)	t _{on} (s)	t _{stg} (s)	t _f (s)
40	4	10	-5	1	-1	0.2typ	1.3typ	0.45typ

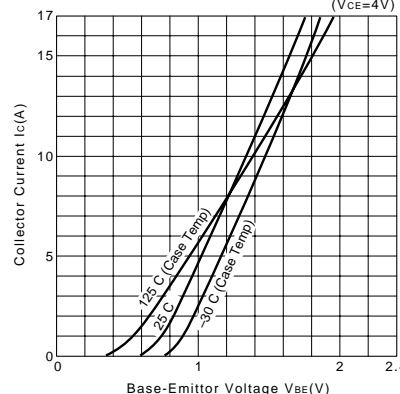
I_C-V_{CE} Characteristics (Typical)



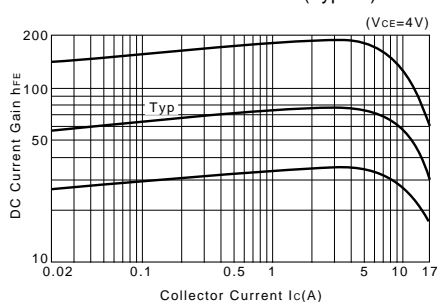
V_{CE(sat)}-I_B Characteristics (Typical)



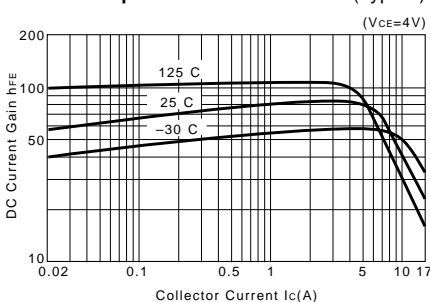
I_C-V_{BE} Temperature Characteristics (Typical)



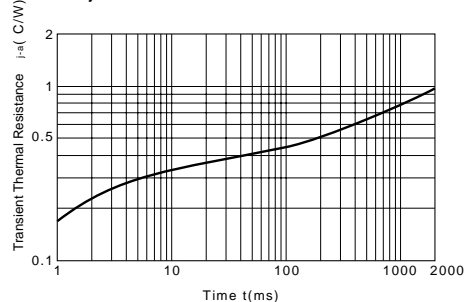
h_{FE}-I_C Characteristics (Typical)



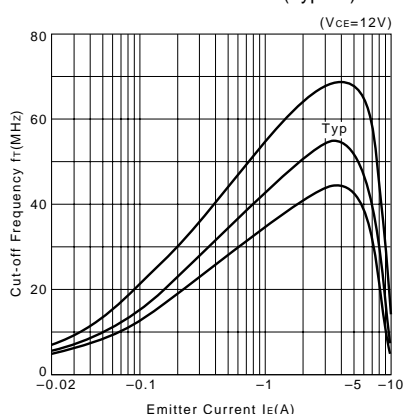
h_{FE}-I_C Temperature Characteristics (Typical)



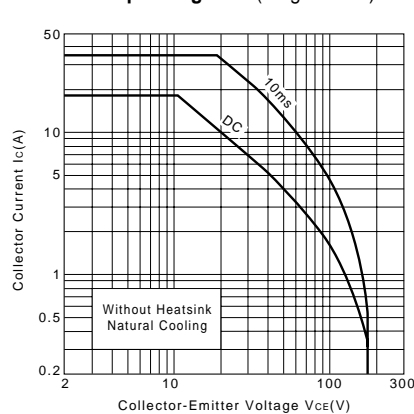
j_a-t Characteristics



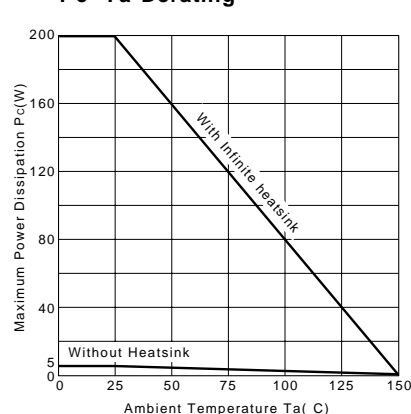
f_r-I_E Characteristics (Typical)



Safe Operating Area (Single Pulse)



P_C-T_a Derating



LAPT

2SA1216

Silicon PNP Epitaxial Planar Transistor (Complement to type 2SC2922)

Application : Audio and General Purpose

Absolute maximum ratings (Ta=25°C)

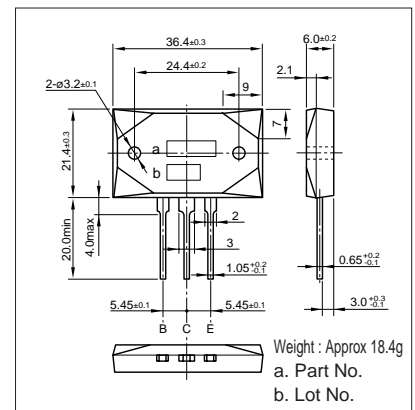
Symbol	Ratings	Unit
V _{CB0}	-180	V
V _{CE0}	-180	V
V _{EB0}	-5	V
I _C	-17	A
I _B	-5	A
P _C	200(T _C =25°C)	W
T _J	150	°C
T _{stg}	-55 to +150	°C

Electrical Characteristics (Ta=25°C)

Symbol	Conditions	Ratings	Unit
V _{CB0}	V _{CB} =-180V	-100max	A
I _{EB0}	V _{EB} =-5V	-100max	A
V _{(BR)CEO}	I _C =-25mA	-180min	V
h _{FE}	V _{CE} =-4V, I _C =-8A	30min*	
V _{CE(sat)}	I _C =-8A, I _B =-0.8A	-2.0max	V
f _r	V _{CE} =-12V, I _E =2A	40typ	MHz
COB	V _{CB} =-10V, f=1MHz	500typ	pF

*h_{FE} Rank \bar{O} (30to60), Y(50to100), P(70to140), G(90to180)

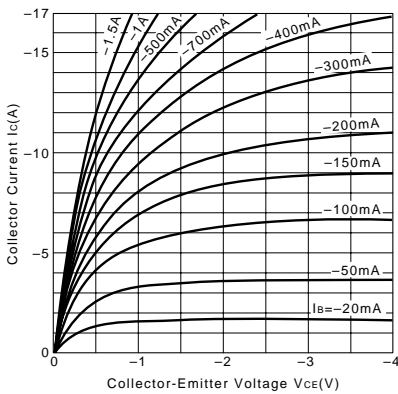
External Dimensions MT-200



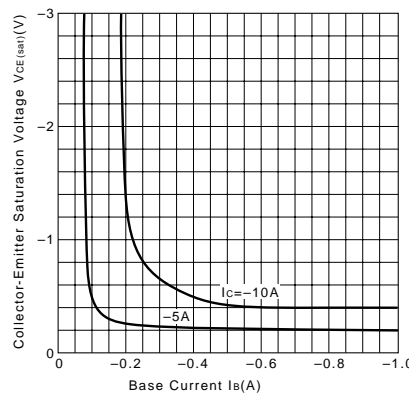
Typical Switching Characteristics (Common Emitter)

V _{CC} (V)	R _L (Ω)	I _C (A)	V _{B2} (V)	I _{B1} (A)	I _{B2} (A)	t _{on} (s)	t _{stg} (s)	t _f (s)
-40	4	-10	5	-1	1	0.3typ	0.7typ	0.2typ

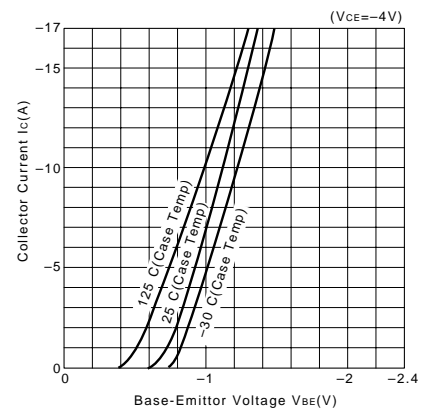
I_C-V_{CE} Characteristics (Typical)



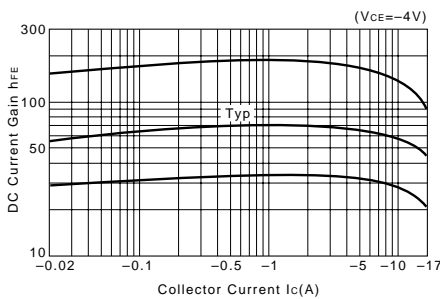
V_{CE(sat)}-I_B Characteristics (Typical)



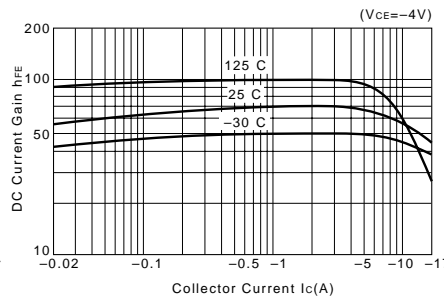
I_C-V_{BE} Temperature Characteristics (Typical)



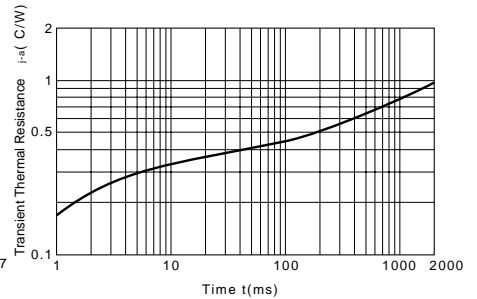
h_{FE}-I_C Characteristics (Typical)



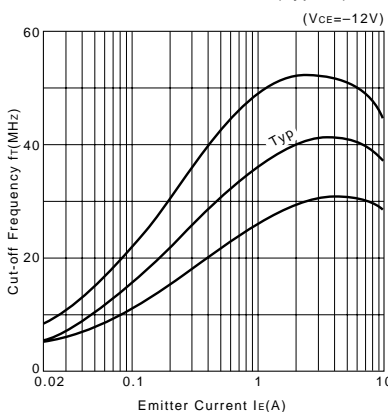
h_{FE}-I_C Temperature Characteristics (Typical)



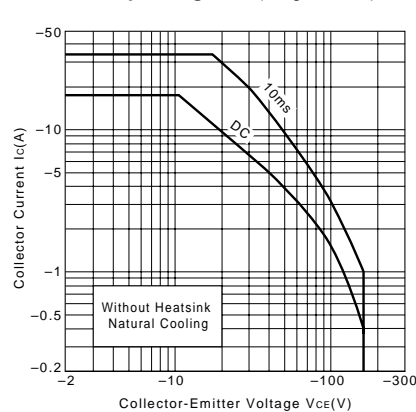
j_a-t Characteristics



f_r-I_E Characteristics (Typical)



Safe Operating Area (Single Pulse)



P_C-T_a Derating

