

2SA1909

Silicon PNP Epitaxial Planar Transistor (Complement to type 2SC5101)

Application : Audio and General Purpose

Absolute maximum ratings (Ta=25°C)

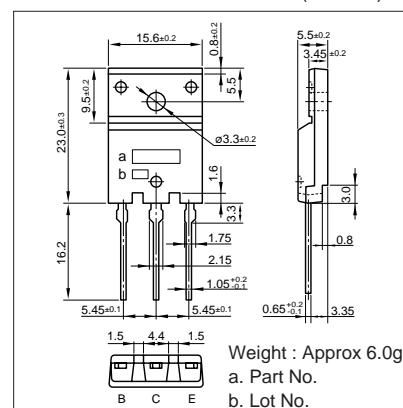
Symbol	Ratings	Unit
V _{CBO}	-140	V
V _{CEO}	-140	V
V _{EBO}	-6	V
I _c	-10	A
I _b	-4	A
P _c	80(T _c =25°C)	W
T _j	150	°C
T _{tsg}	-55 to +150	°C

Electrical Characteristics (Ta=25°C)

Symbol	Conditions	Ratings	Unit
I _{cbo}	V _{CB} =-140V	-10max	μA
I _{ebo}	V _{EB} =-6V	-10max	μA
V _{(BR)CEO}	I _c =-50mA	-140min	V
h _{FE}	V _{CE} =-4V, I _c =-3A	50min*	
V _{CE(sat)}	I _c =-5A, I _b =-0.5A	-0.5max	V
f _T	V _{CE} =-12V, I _e =0.5A	20typ	MHz
C _{OB}	V _{CB} =-10V, f=1MHz	400typ	pF

*h_{FE} Rank O(50 to 100), P(70 to 140), Y(90 to 180)

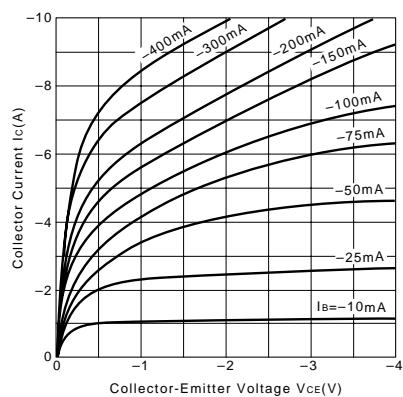
External Dimensions FM100(TO3PF)



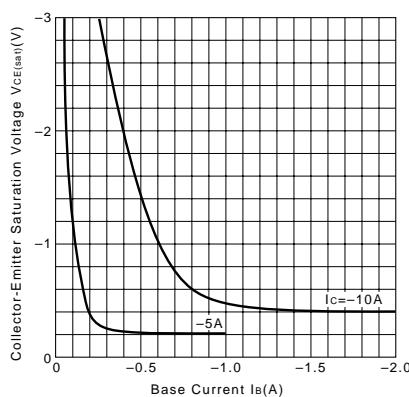
Typical Switching Characteristics (Common Emitter)

V _{CC} (V)	R _L (Ω)	I _c (A)	V _{BB1} (V)	V _{BB2} (V)	I _{b1} (A)	I _{b2} (A)	t _{on} (μs)	t _{tsg} (μs)	t _f (μs)
-60	12	-5	-10	5	-0.5	0.5	0.17typ	1.86typ	0.27typ

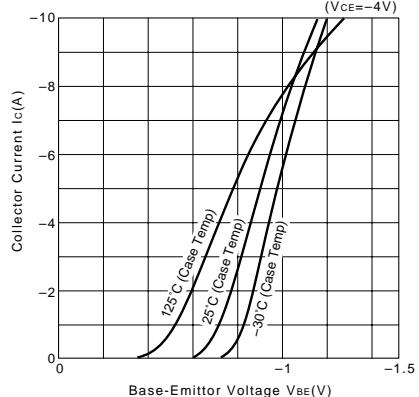
I_c-V_{CE} Characteristics (Typical)



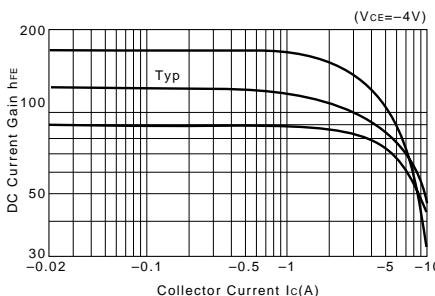
V_{CE(sat)}-I_b Characteristics (Typical)



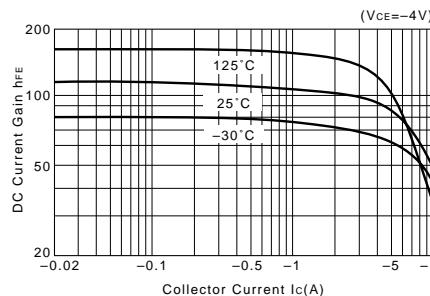
I_c-V_{BE} Temperature Characteristics (Typical)



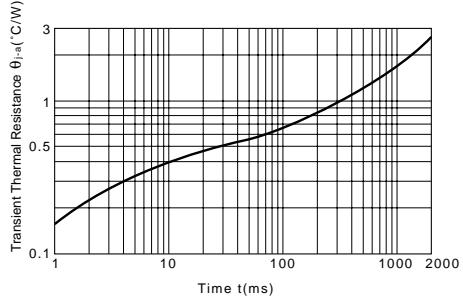
h_{FE}-I_c Characteristics (Typical)



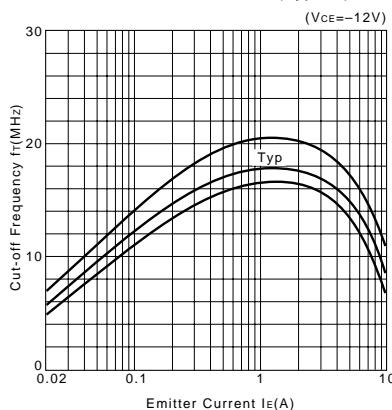
h_{FE}-I_c Temperature Characteristics (Typical)



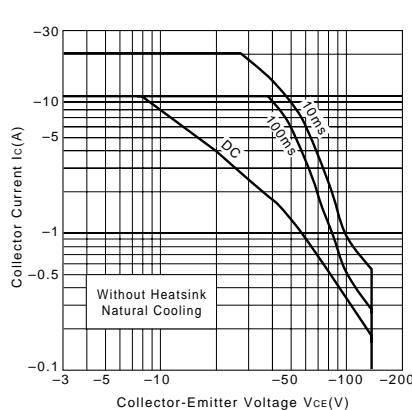
θ_{j-a}-t Characteristics



f_T-I_e Characteristics (Typical)



Safe Operating Area (Single Pulse)



Pc-Ta Derating

