

Silicon NPN Epitaxial Planar Transistor (Complement to type 2SA1215)

Application : Audio and General Purpose

Absolute maximum ratings (Ta=25°C)

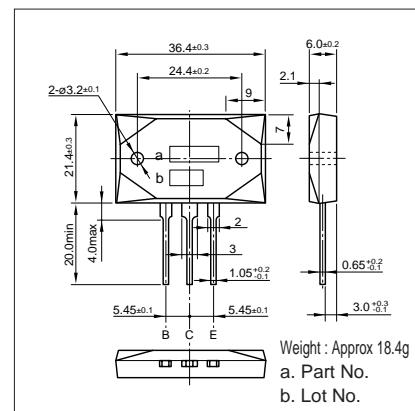
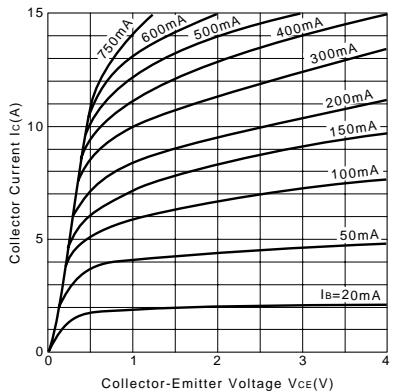
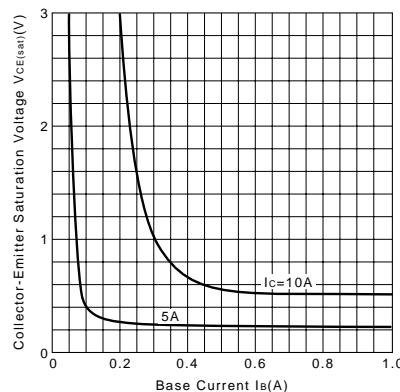
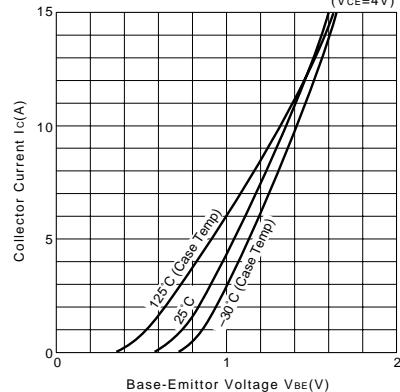
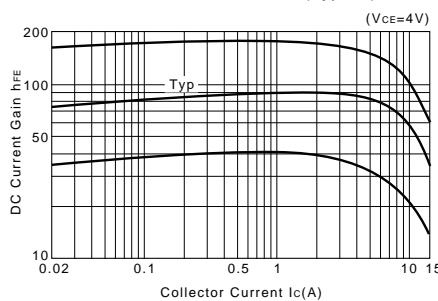
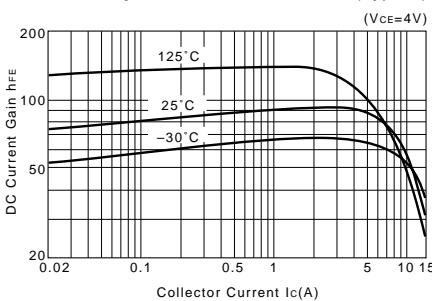
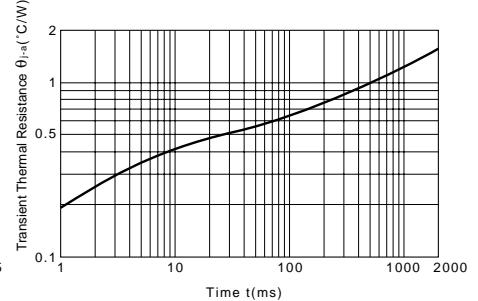
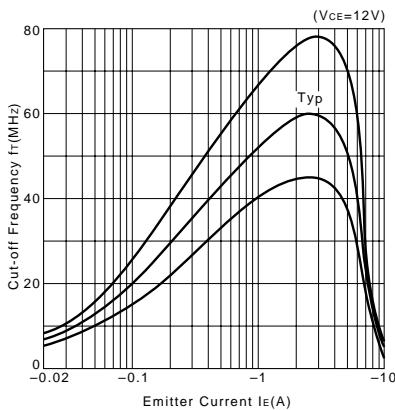
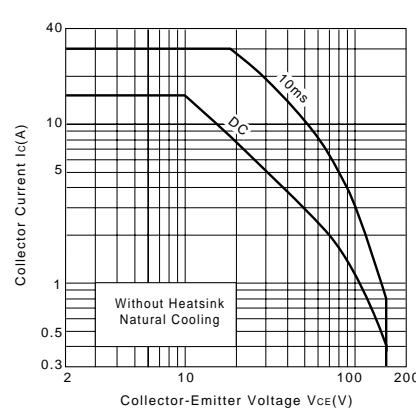
Symbol	Ratings	Unit
V _{CBO}	160	V
V _{CEO}	160	V
V _{EB0}	5	V
I _c	15	A
I _b	4	A
P _c	150(Tc=25°C)	W
T _j	150	°C
T _{tsg}	-55 to +150	°C

Electrical Characteristics (Ta=25°C)

Symbol	Conditions	Ratings	Unit
I _{cbo}	V _{CB} =160V	100max	μA
I _{ebo}	V _{EB} =5V	100max	μA
V _{(BR)CEO}	I _c =25mA	160min	V
h _{FE}	V _{CE} =4V, I _c =5A	50min*	
V _{CE(sat)}	I _c =5A, I _b =0.5A	2.0max	V
f _t	V _{CE} =12V, I _b =-2A	60typ	MHz
C _{OB}	V _{CB} =10V, f=1MHz	200typ	pF

*h_{FE} Rank O(50 to 100), P(70 to 140), Y(90 to 180)**Typical Switching Characteristics (Common Emitter)**

V _{cc} (V)	R _L (Ω)	I _c (A)	V _{B2} (V)	I _{b1} (mA)	I _{b2} (mA)	t _{on} (μs)	t _{tsg} (μs)	t _f (μs)
60	12	5	-5	500	-500	0.2typ	1.5typ	0.35typ

External Dimensions MT-200**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)****P_c-Ta Derating**