

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

Application : Audio and General Purpose

Absolute maximum ratings (Ta=25°C)

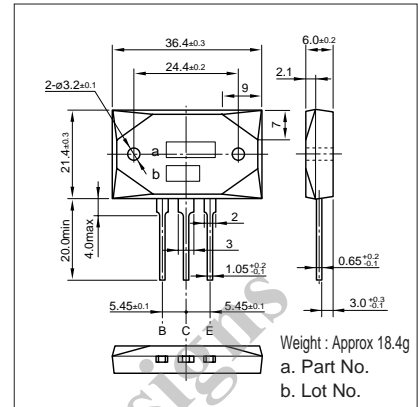
Symbol	Ratings	Unit
VcBO	180	V
VCEO	180	V
VEBO	5	V
Ic	17	A
Ib	5	A
Pc	200(Tc=25°C)	W
Tj	150	°C
Tstg	-55 to +150	°C

Electrical Characteristics (Ta=25°C)

Symbol	Conditions	Ratings	Unit
ICBO	VcB=180V	100max	μA
IEBO	VEB=5V	100max	μA
V(BR)CEO	Ic=25mA	180min	V
hFE	VCE=4V, Ic=8V	30min*	
VCE(sat)	Ic=8A, Ib=0.8A	2.0max	V
fr	VCE=12V, IE=-2A	50typ	MHz
COB	VcB=10V, f=1MHz	250typ	pF

*hFE Rank O(30 to 60), Y(50 to 100), P(70 to 140), G(90 to 180)

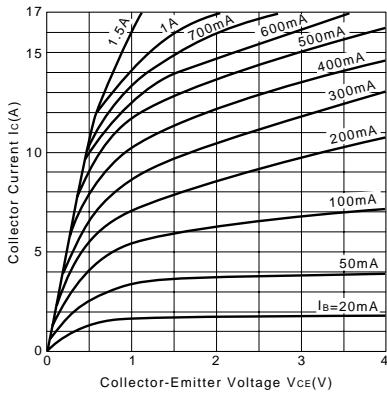
External Dimensions MT-200



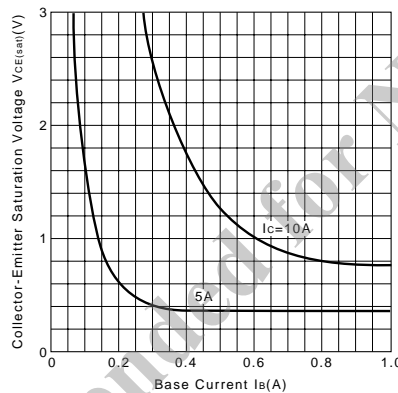
Typical Switching Characteristics (Common Emitter)

VCC (V)	RL (Ω)	Ic (A)	VB2 (V)	Ib1 (A)	Ib2 (A)	ton (μs)	tstg (μs)	tf (μs)
40	4	10	-5	1	-1	0.2typ	1.3typ	0.45typ

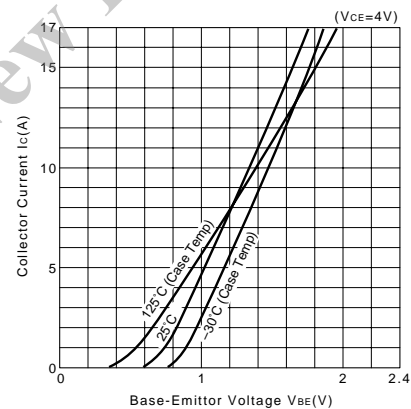
Ic-VCE Characteristics (Typical)



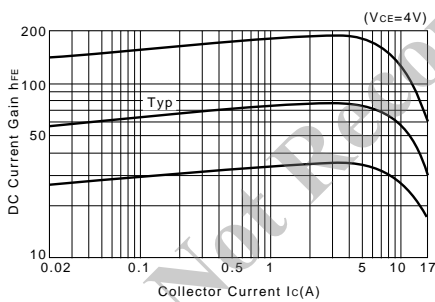
VCE(sat)-Ib Characteristics (Typical)



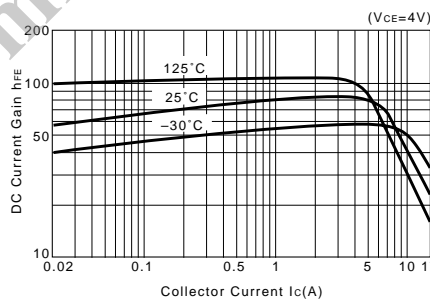
Ic-VBE Temperature Characteristics (Typical)



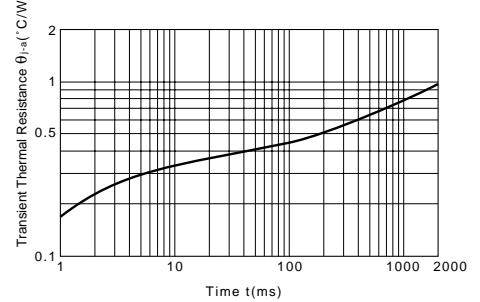
hFE-Ic Characteristics (Typical)



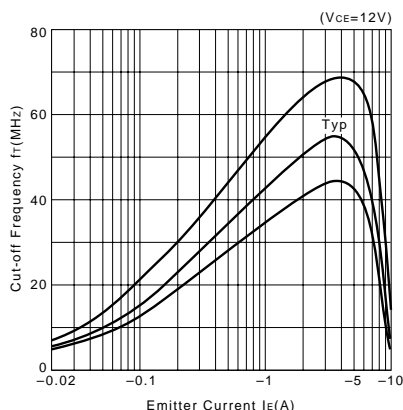
hFE-Ic Temperature Characteristics (Typical)



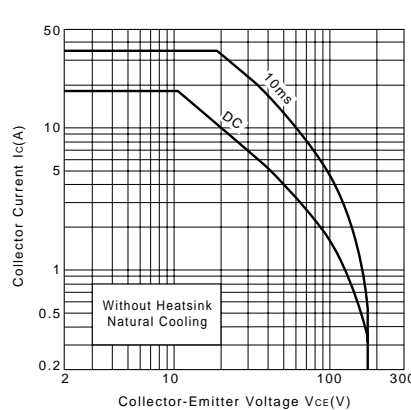
θj-a-t Characteristics



fr-Ie Characteristics (Typical)



Safe Operating Area (Single Pulse)



Pc-Ta Derating

