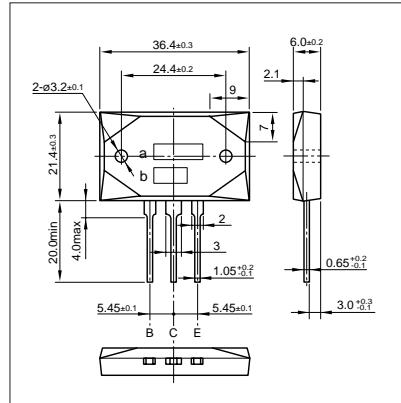
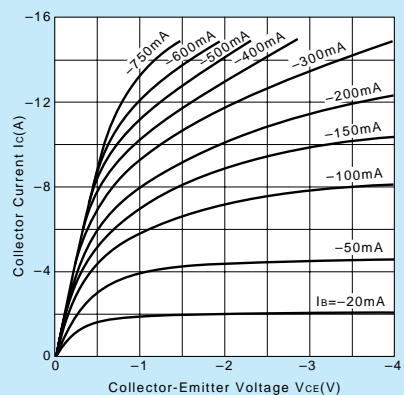
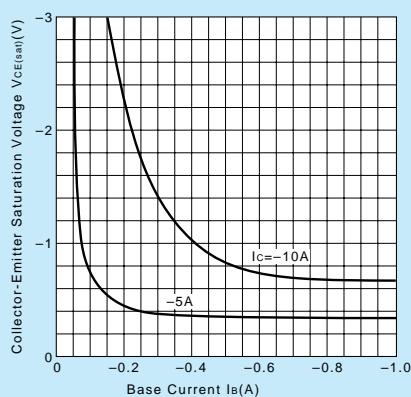
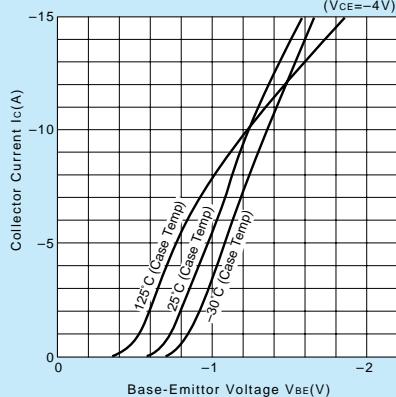
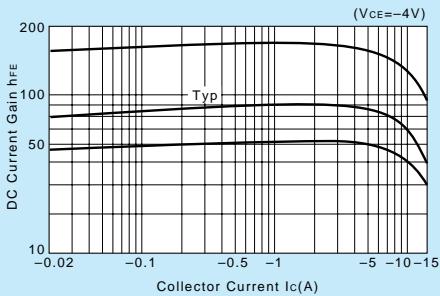
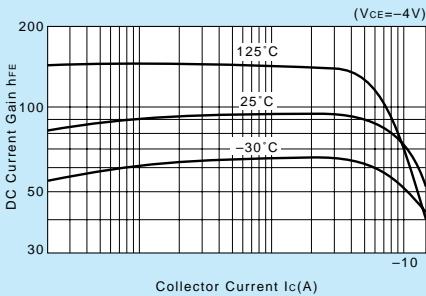
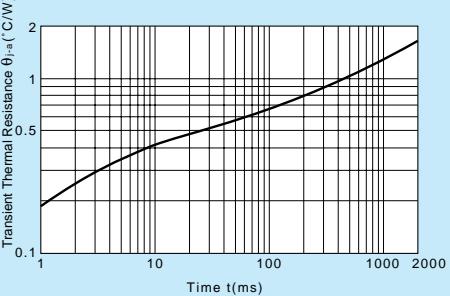
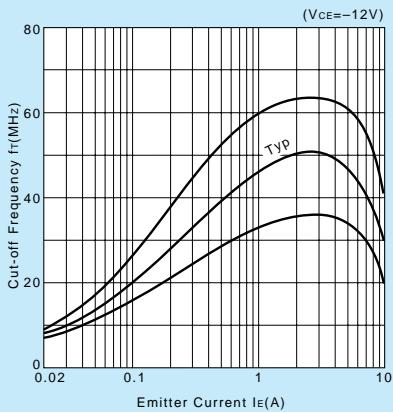
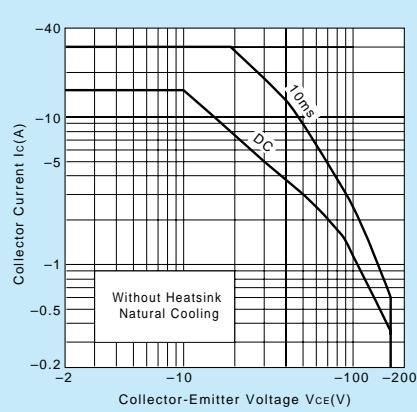
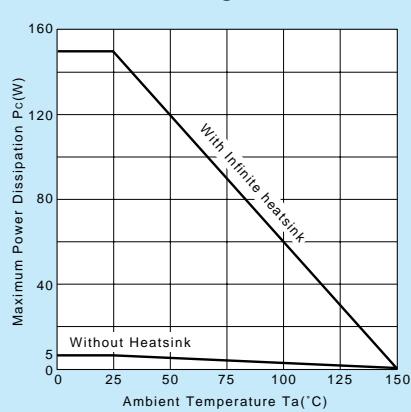


Symbol	2SA1215	Unit
V <sub>CBO</sub>	-160	V
V <sub>CEO</sub>	-160	V
V <sub>EBO</sub>	-5	V
I <sub>C</sub>	-15	A
I <sub>B</sub>	-4	A
P <sub>c</sub>	150(T <sub>c</sub> =25°C)	W
T <sub>j</sub>	150	°C
T <sub>stg</sub>	-55 to +150	°C

Symbol	Conditions	2SA1215	Unit
I <sub>CBO</sub>	V <sub>CB</sub> =-160V	-100max	μA
I <sub>EBO</sub>	V <sub>EB</sub> =-5V	-100max	μA
V <sub>(BR)CEO</sub>	I <sub>C</sub> =-25mA	-160min	V
h <sub>FE</sub>	V <sub>CE</sub> =-4V, I <sub>C</sub> =-5A	50min*	
V <sub>CE(sat)</sub>	I <sub>C</sub> =-5A, I <sub>B</sub> =-0.5A	-2.0max	V
f <sub>r</sub>	V <sub>CE</sub> =-12V, I <sub>E</sub> =2A	50typ	MHz
C <sub>OB</sub>	V <sub>CB</sub> =-10V, f=1MHz	400typ	pF

V <sub>CC</sub> (V)	R <sub>L</sub> (Ω)	I <sub>C</sub> (A)	V <sub>B2</sub> (V)	I <sub>B1</sub> (mA)	I <sub>B2</sub> (mA)	t <sub>on</sub> (μs)	t <sub>stg</sub> (μs)	t <sub>f</sub> (μs)
-60	12	-5	5	-500	500	0.25typ	0.85typ	0.2typ

**I<sub>C</sub>-V<sub>CE</sub> Characteristics (Typical)****V<sub>CE(sat)</sub>-I<sub>B</sub> Characteristics (Typical)****I<sub>C</sub>-V<sub>BE</sub> Temperature Characteristics (Typical)****h<sub>FE</sub>-I<sub>C</sub> Characteristics (Typical)****h<sub>FE</sub>-I<sub>C</sub> Temperature Characteristics (Typical)****θ<sub>j-a</sub>-t Characteristics****f<sub>r</sub>-I<sub>E</sub> Characteristics (Typical)****Safe Operating Area (Single Pulse)****P<sub>c</sub>-Ta Derating**

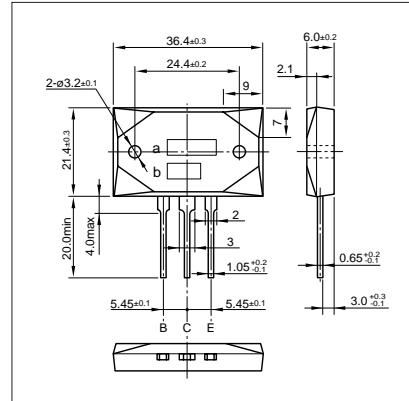
Silicon NPN Epitaxial Planar Transistor (Complement to type 2SA1215)

Application : Audio and General Purpose

Absolute maximum ratings (Ta=25°C)		
Symbol	2SC2921	Unit
V <sub>CBO</sub>	160	V
V <sub>CEO</sub>	160	V
V <sub>EBO</sub>	5	V
I <sub>C</sub>	15	A
I <sub>B</sub>	4	A
P <sub>c</sub>	150(Tc=25°C)	W
T <sub>j</sub>	150	°C
T <sub>tsg</sub>	-55 to +150	°C

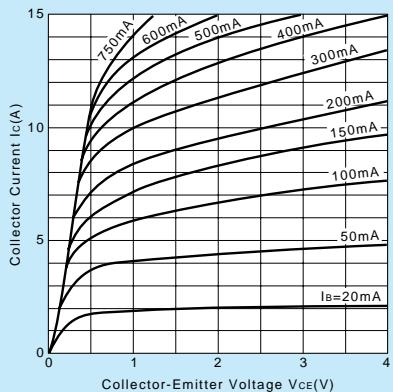
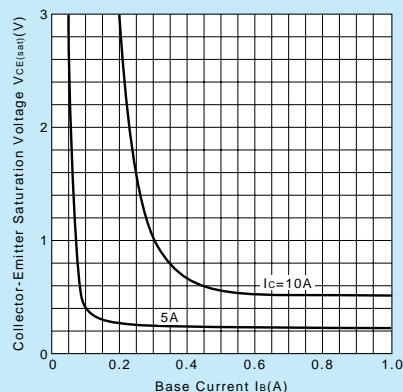
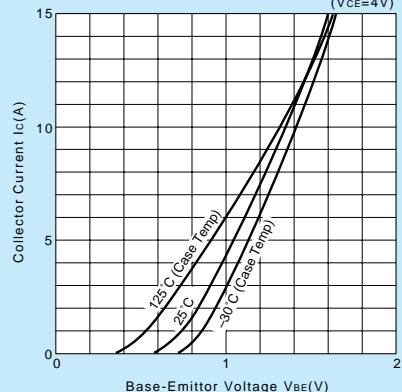
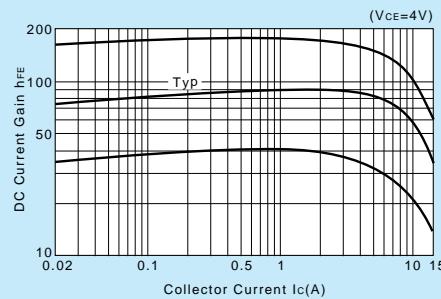
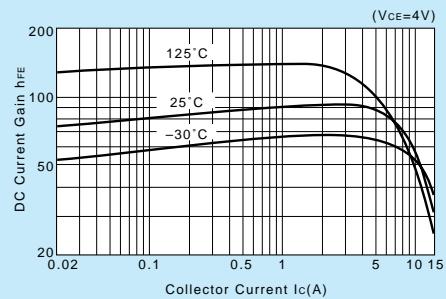
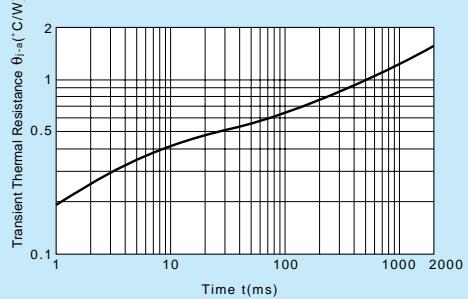
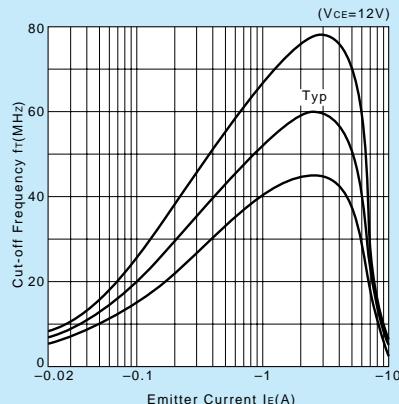
Electrical Characteristics (Ta=25°C)			
Symbol	Conditions	2SC2921	Unit
I <sub>CBO</sub>	V <sub>CB</sub> =160V	100max	μA
I <sub>EBO</sub>	V <sub>EB</sub> =5V	100max	μA
V <sub>(BR)CEO</sub>	I <sub>C</sub> =25mA	160min	V
h <sub>FE</sub>	V <sub>CE</sub> =4V, I <sub>C</sub> =5A	50min*	
V <sub>CE(sat)</sub>	I <sub>C</sub> =5A, I <sub>B</sub> =0.5A	2.0max	V
f <sub>T</sub>	V <sub>CE</sub> =12V, I <sub>E</sub> =-2A	60typ	MHz
C <sub>OB</sub>	V <sub>CB</sub> =10V, f=1MHz	200typ	pF

## External Dimensions MT-200

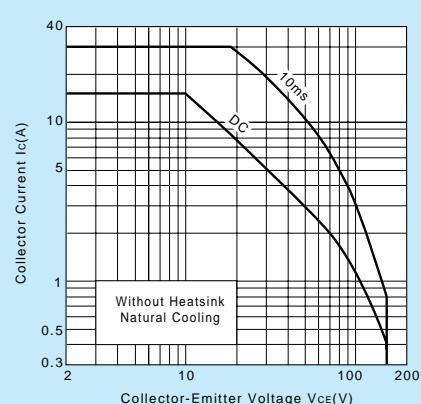


## Typical Switching Characteristics (Common Emitter)

V <sub>CC</sub> (V)	R <sub>L</sub> (Ω)	I <sub>C</sub> (A)	V <sub>B2</sub> (V)	I <sub>B1</sub> (mA)	I <sub>B2</sub> (mA)	t <sub>on</sub> (μs)	t <sub>tsg</sub> (μs)	t <sub>f</sub> (μs)
60	12	5	-5	500	-500	0.2typ	1.5typ	0.35typ

I<sub>C</sub>-V<sub>CE</sub> Characteristics (Typical)V<sub>CE(sat)</sub>-I<sub>B</sub> Characteristics (Typical)I<sub>C</sub>-V<sub>BE</sub> Temperature Characteristics (Typical)h<sub>FE</sub>-I<sub>C</sub> Characteristics (Typical)h<sub>FE</sub>-I<sub>C</sub> Temperature Characteristics (Typical)θ<sub>ja-t</sub> Characteristicsf<sub>T</sub>-I<sub>E</sub> Characteristics (Typical)

## Safe Operating Area (Single Pulse)



## Pc-Ta Derating

