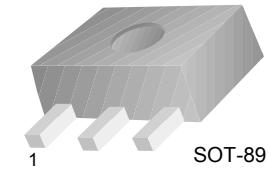
FAIRCHILD SEMICONDUCTOR®

July 2005

KSA1203
PNP Epitaxial Silicon Transistor

Low Frequency Power Amplifier

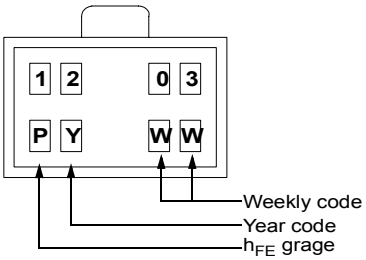
- 3W Output application
- Collector Power Dissipation P_C=1~2W : Mounted on Ceramic Board
- Complement to KSC2883



SOT-89

1. Base 2. Collector 3. Emitter

Marking



Absolute Maximum Ratings T_a = 25°C unless otherwise noted

Symbol	Parameter	Ratings	Units
V_{CBO}	Collector-Base Voltage	-30	V
V_{CEO}	Collector-Emitter Voltage	-30	V
V_{EBO}	Emitter-Base Voltage	-5	V
I_C	Collector Current	-1.5	A
I_B	Base Current	-0.3	A
P_C P_C*	Collector Power Dissipation	500 1,000	mW mW
T_J	Junction Temperature	150	°C
T_{STG}	Storage Temperature	-55 ~ 150	°C

* Mounted on Ceramic Board (250mm^2 × 0.8mm)

Electrical Characteristics T_a = 25°C unless otherwise noted

Symbol	Parameter	Test Condition	Min.	Typ.	Max.	Units
BV_{CEO}	Collector-Emitter Breakdown Voltage	I_C = -10mA, I_B = 0	-30			V
BV_{EBO}	Emitter-Base Breakdown Voltage	I_E = -1mA, I_C = 0	-5			V
I_{CBO}	Collector Cut-off Current	V_{CB} = -30V, I_E = 0			-100	nA
I_{EBO}	Emitter Cut-off Current	V_{BE} = -5V, I_C = 0			-100	nA
h_{FE}	DC Current Gain	V_{CE} = -2V, I_C = -500mA	100		320	
V_{CE} (sat)	Collector-Emitter Saturation Voltage	I_C = -1.5A, I_B = -30mA			-2.0	V
V_{BE} (on)	Base-Emitter On Voltage	V_{CE} = -2V, I_C = -500mA			-1.0	V
f_T	Current Gain Bandwidth Product	V_{CE} = -2V, I_C = -500mA		120		MHz
C_{ob}	Output Capacitance	V_{CB} = -10V, I_E = 0, f = 1MHz			50	pF

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h_{FE} Classification

Classification	O	Y
h_{FE}	100 ~ 200	160 ~ 320

Package Marking and Ordering Information

Device Marking	Device	Package	Reel Size	Tape Width	Quantity
1203	KSA1203	SOT-89	13”	--	4,000

Typical Performance Characteristics

Figure 1. Static Characteristic

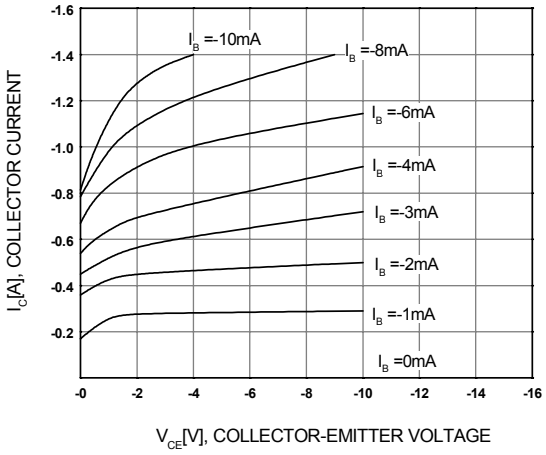


Figure 2. DC Current Gain

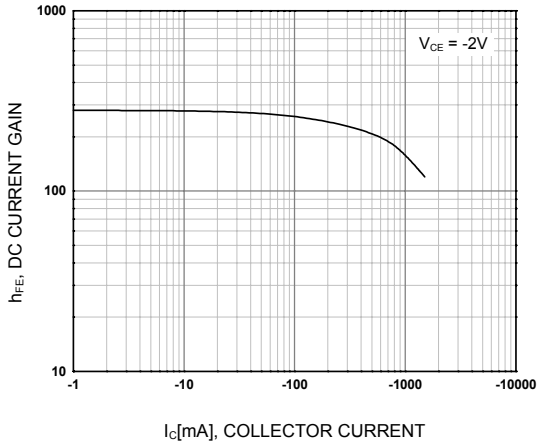


Figure 3. Collector-Emitter Saturation Voltage

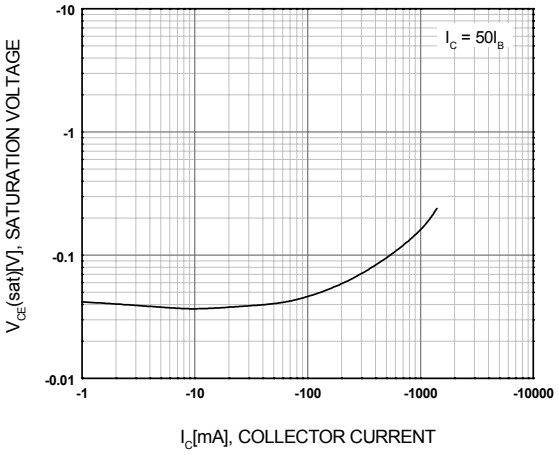


Figure 4. Base-Emitter On Voltage

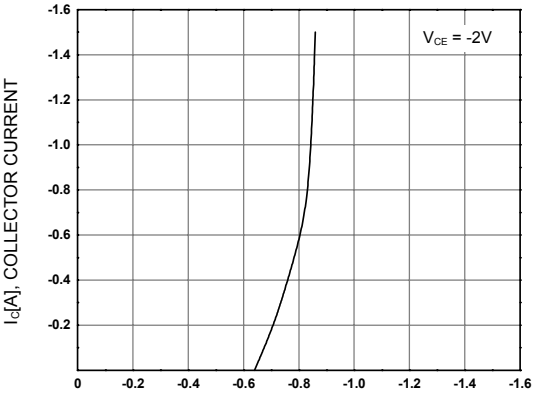


Figure 5. Safe Operating Area

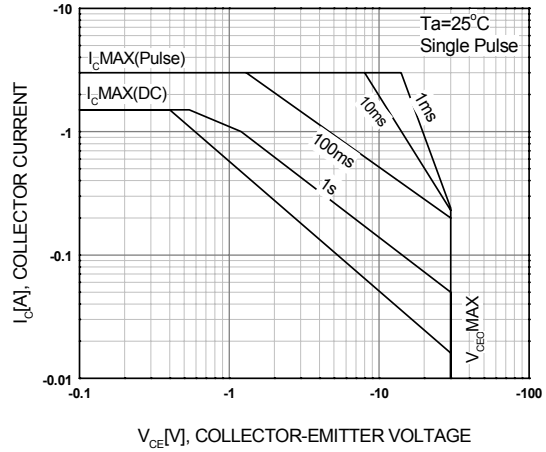
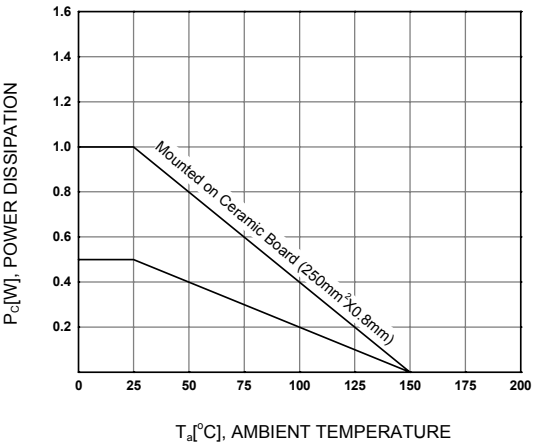
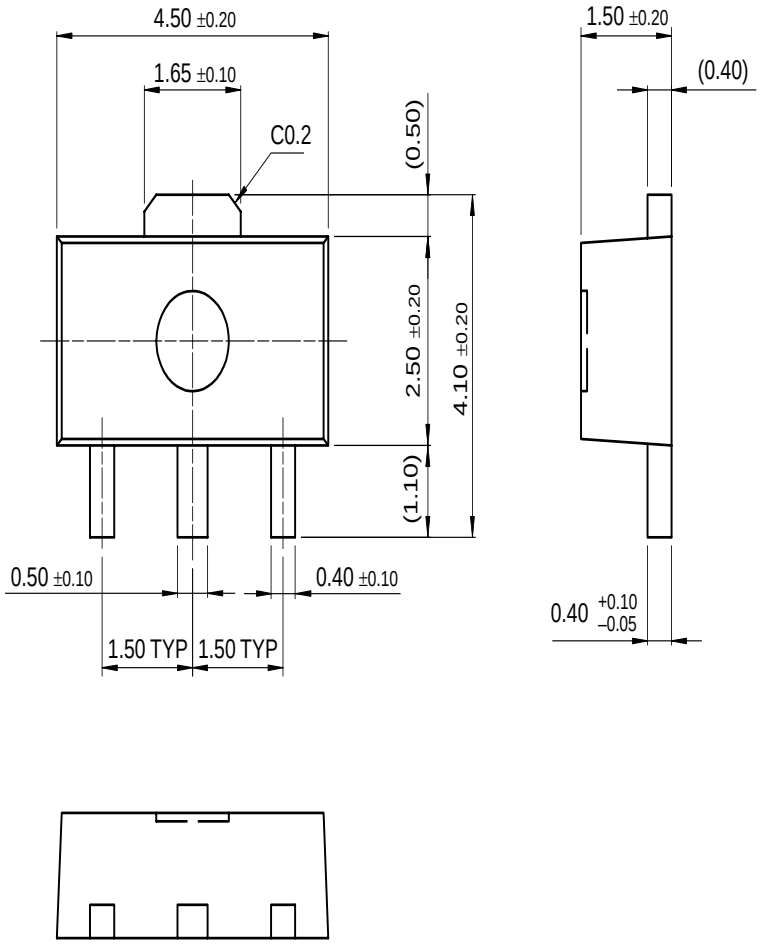


Figure 6. Power Derating



Mechanical Dimensions

SOT-89



Dimensions in Millimeters

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2. A critical component is any component of a life support device or system whose failure to perform can be reasonably expected to cause the failure of the life support device or system, or to affect its safety or effectiveness.

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No Identification Needed	Full Production	This datasheet contains final specifications. Fairchild Semiconductor reserves the right to make changes at any time without notice in order to improve design.
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