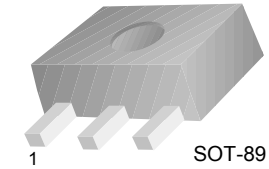
FAIRCHILD SEMICONDUCTOR®

July 2005

FJC1386
PNP Epitaxial Silicon Transistor

Low Saturation Transistor Medium Power Amplifier

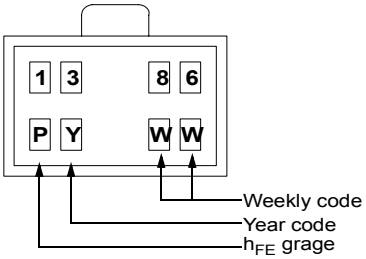
- Complement to FJC2098
- High Collector Current
- Low Collector-Emitter Saturation Voltage



SOT-89

1. Base 2. Collector 3. Emitter

Marking



Absolute Maximum Ratings T_a = 25°C unless otherwise noted

Symbol	Parameter	Value	Units
V_{CBO}	Collector-Base Voltage	-30	V
V_{CEO}	Collector-Emitter Voltage	-20	V
V_{EBO}	Emitter-Base Voltage	-6	V
I_C	Collector Current (DC)	-5	A
P_C	Power Dissipation (T_a = 25°C)	0.5	W
T_J	Junction Temperature	150	°C
T_{STG}	Storage Temperature	-55 to +150	°C

Electrical Characteristics T_a = 25°C unless otherwise noted

Symbol	Parameter	Test Condition	Min.	Max.	Units
BV_{CBO}	Collector-Base Breakdown Voltage	I_C = -50μA, I_E = 0	-30		V
BV_{CEO}	Collector-Emitter Breakdown Voltage	I_C = -1mA, I_B = 0	-20		V
BV_{EBO}	Emitter-Base Breakdown Voltage	I_E = -50μA, I_C = 0	-6		V
I_{CBO}	Collector-Cutoff Current	V_{CB} = -20V, V_B = 0		-0.5	μA
I_{EBO}	Emitter-Cutoff Current	V_{EB} = -5V, I_C = 0		-0.5	μA
h_{FE}	DC Current Gain	V_{CE} = -2V, I_C =-0.5A	80	390	
$V_{CE\ (sat)}$	Collector-Emitter Saturation Voltage	I_C = -4A, I_B = -0.1A		-1.0	V
$V_{BE\ (sat)}$	Base-Emitter Saturation Voltage	I_C = -4A, I_B = -0.1A		-1.5	V

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Thermal Characteristics

T_a = 25°C unless otherwise noted

Symbol	Parameter	Max.	Units
$R_{\theta JA}$	Thermal Resistance, Junction to Ambient	250	°C/W

h_{FE} Classification

Classification	P	Q	R
hFE	80 ~ 180	120 ~ 270	180 ~ 390

Package Marking and Ordering Information

Device Marking	Device	Package	Reel Size	Tape Width	Quantity
1386	FJC1386	SOT-89	13”	--	4,000

Typical Performance Characteristics

Figure 1. Static Characteristic

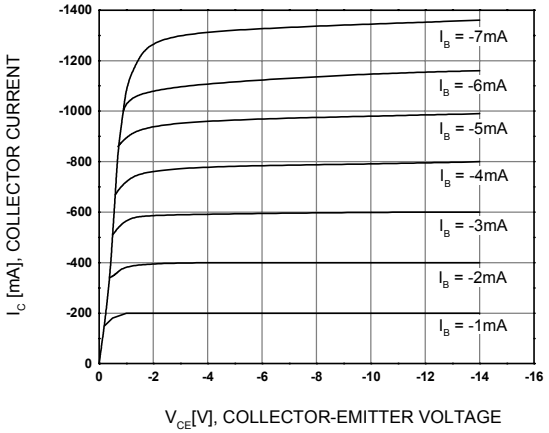


Figure 2. DC Current Gain

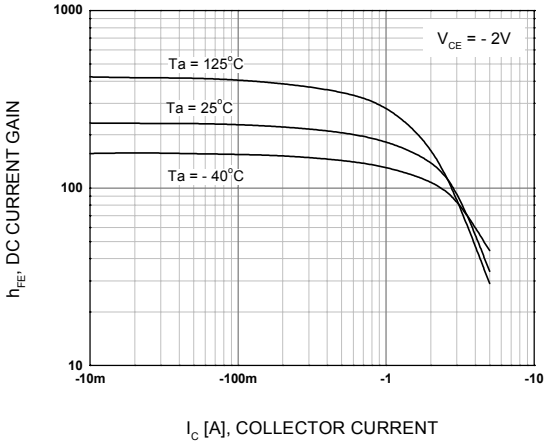


Figure 3. Collector-Emitter Saturation Voltage

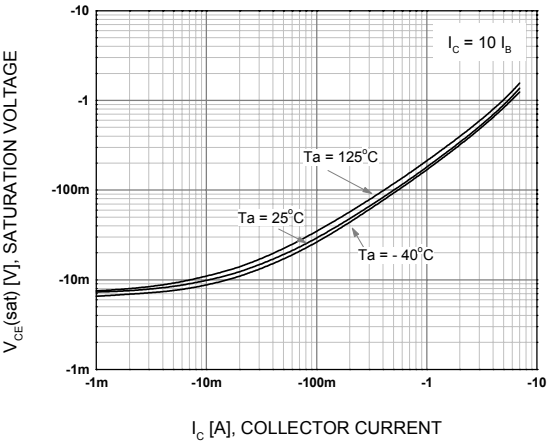


Figure 4. Base-Emitter Saturation Voltage

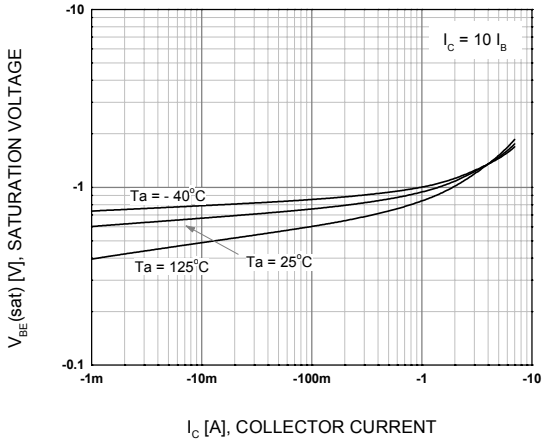


Figure 5. Base-Emitter On Voltage

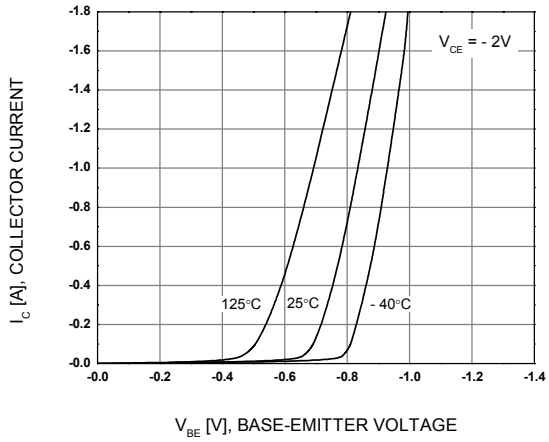
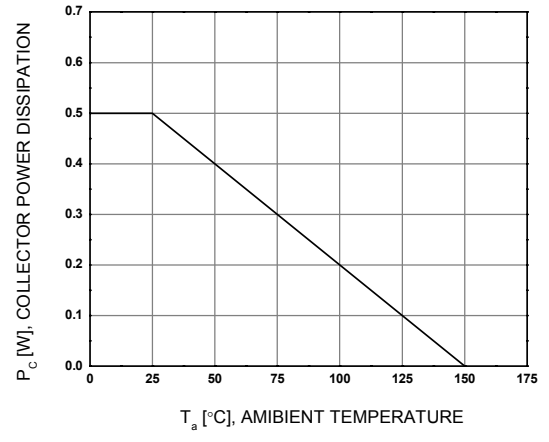
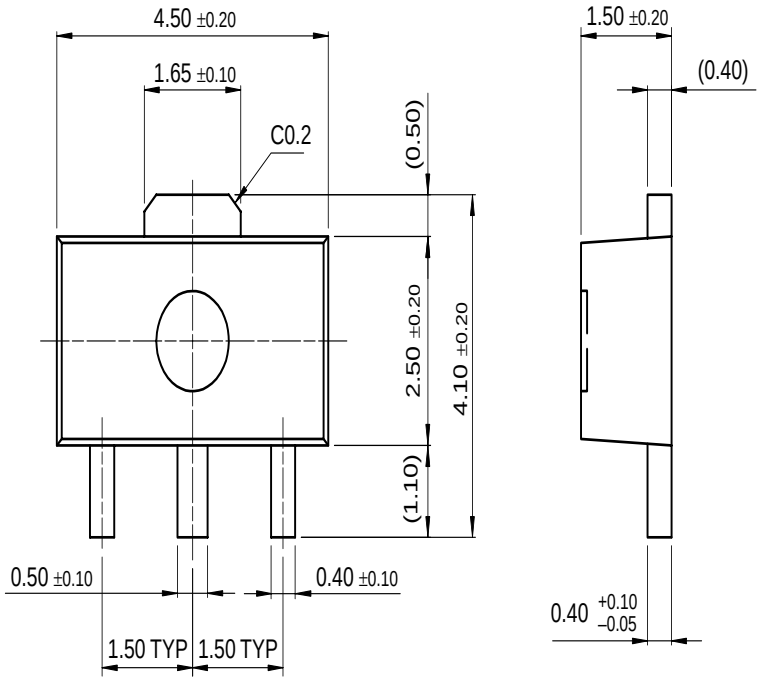


Figure 6. Power Derating



Mechanical Dimensions

SOT-89



Dimensions in Millimeters

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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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Rev. I16

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