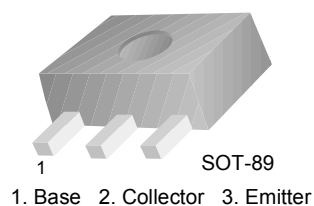


FJC1386

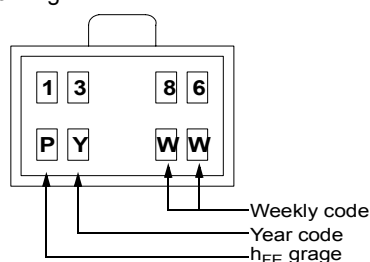
PNP Epitaxial Silicon Transistor

Low Saturation Transistor Medium Power Amplifier

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



Marking



Absolute Maximum Ratings $T_a = 25^\circ\text{C}$ 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 ($T_a = 25^\circ\text{C}$)	0.5	W
T_J	Junction Temperature	150	$^\circ\text{C}$
T_{STG}	Storage Temperature	-55 to +150	$^\circ\text{C}$

Electrical Characteristics $T_a = 25^\circ\text{C}$ unless otherwise noted

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

Thermal Characteristics $T_a = 25^\circ\text{C}$ unless otherwise noted

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

 h_{FE} Classification

Classification	P	Q	R
h_{FE}	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

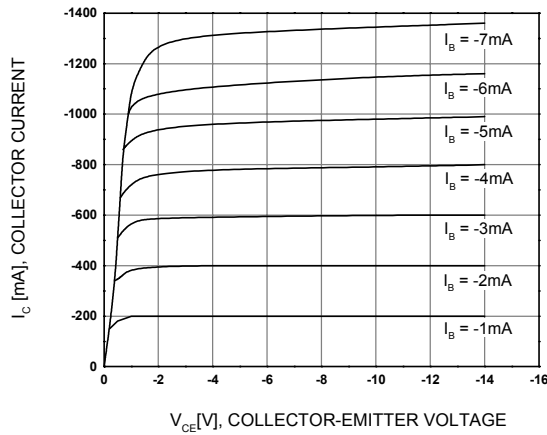


Figure 2. DC Current Gain

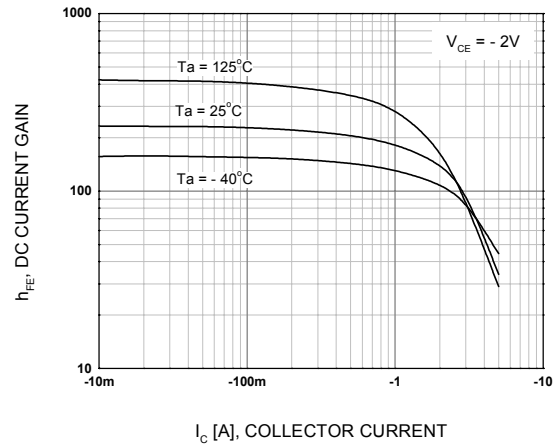


Figure 3. Collector-Emitter Saturation Voltage

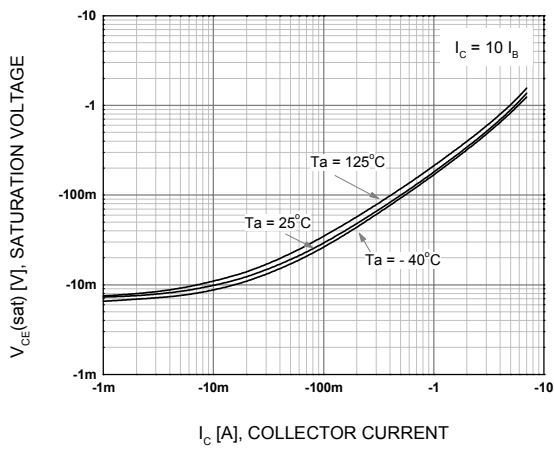


Figure 4. Base-Emitter Saturation Voltage

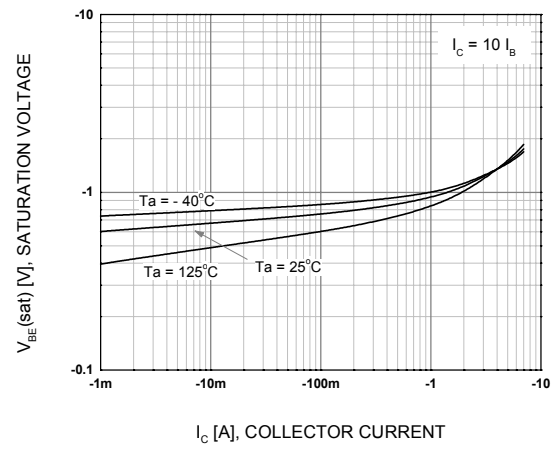


Figure 5. Base-Emitter On Voltage

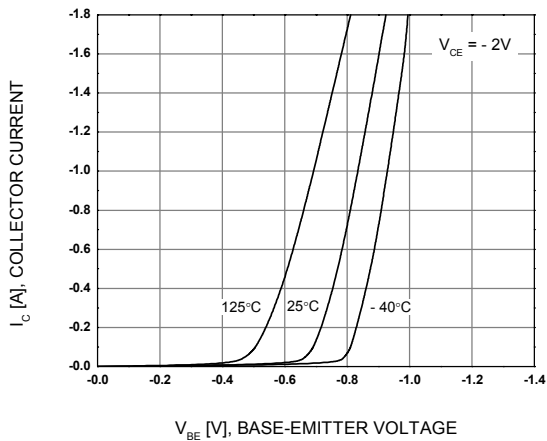
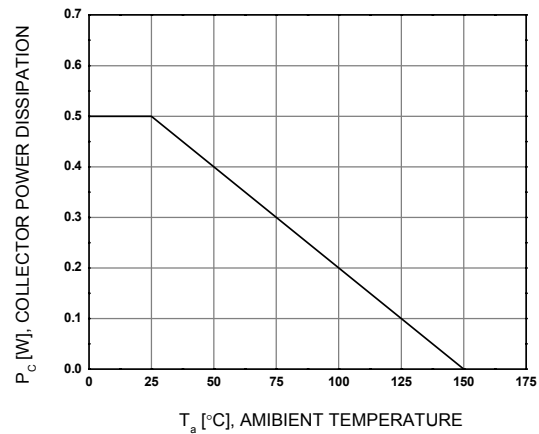


Figure 6. Power Derating



Technical drawing of a mechanical part showing three views: front, side, and top.

Front View Dimensions:

- Overall width: 4.50 ± 0.20
- Top feature width: 1.65 ± 0.10
- Top feature height: 0.50
- Feature radius: $R0.2$
- Central hole diameter: 2.50 ± 0.20
- Overall height: 4.10 ± 0.20
- Bottom feature height: 1.10
- Bottom feature width (left): 0.50 ± 0.10
- Bottom feature width (right): 0.40 ± 0.10
- Bottom feature spacing (typical): 1.50 TYP

Side View Dimensions:

- Overall width: 1.50 ± 0.20
- Feature width: 0.40
- Feature height: $+0.10 / -0.05$

Top View:

- Shows the top surface of the part with three rectangular features.

FJC1386 Rev. C1

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Rev. 116

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