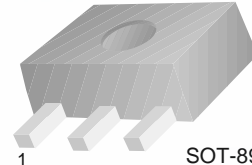


FAIRCHILD
SEMICONDUCTOR®

FJC1386

Low Saturation Transistor Medium Power Amplifier

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



1. Base 2. Collector 3. Emitter

PNP Epitaxial Silicon Transistor

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

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

Symbol	Parameter	Test Condition	Min.	Typ.	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 Cut-off Current	$V_{CB}=-20\text{V}, V_B=0$			-0.5	μA
I_{EBO}	Emitter Cut-off 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	$I_C=-4, I_B=-0.1\text{A}$			-1.0	V
$V_{BE(sat)}$	Base-Emitter Saturation Voltage	$I_C=-4, I_B=-0.1\text{A}$			-1.5	V

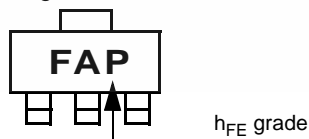
Thermal Characteristics $T_C=25^\circ\text{C}$ unless otherwise noted

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

h_{FE} Classification

Classification	P	Q	R
h_{FE}	80 ~ 180	120 ~ 270	180 ~ 390

Marking



Typical Characteristics

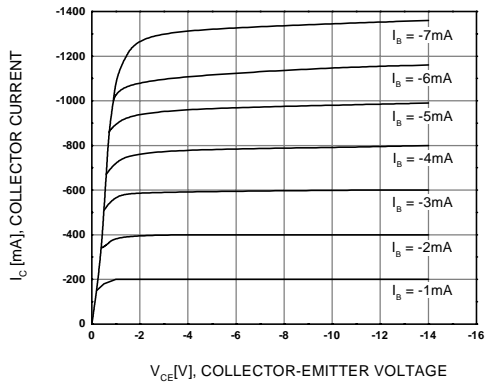


Figure 1. Static Characteristic

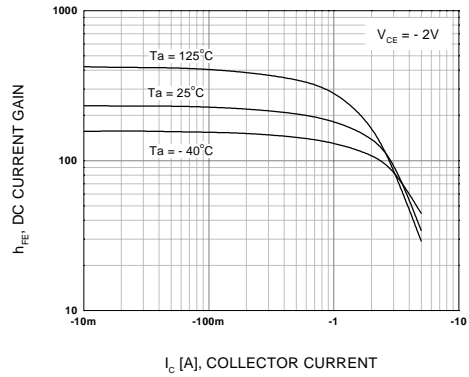


Figure 2. DC current Gain

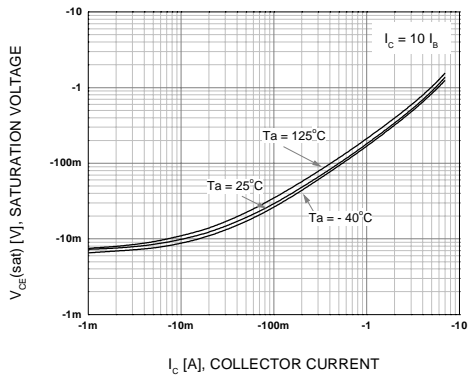


Figure 3. Collector-Emitter Saturation Voltage

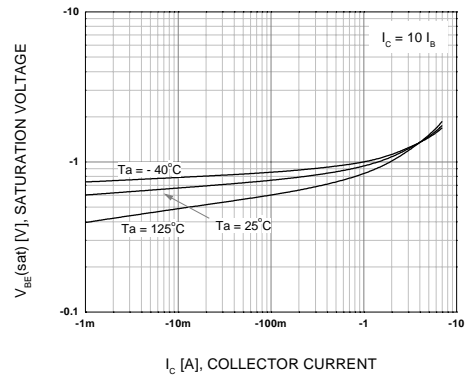


Figure 4. Base-Emitter Saturation Voltage

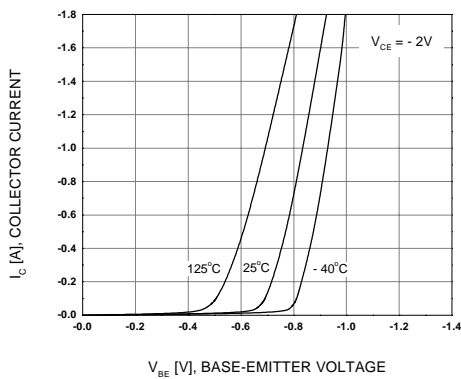


Figure 5. Base-Emitter On Voltage

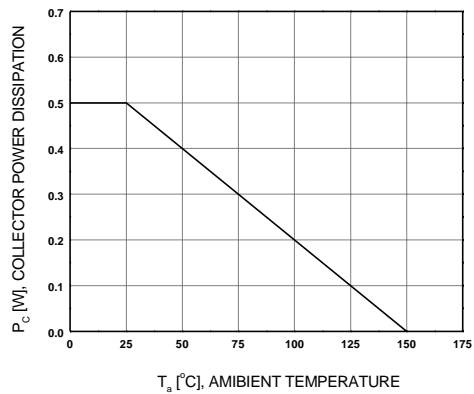
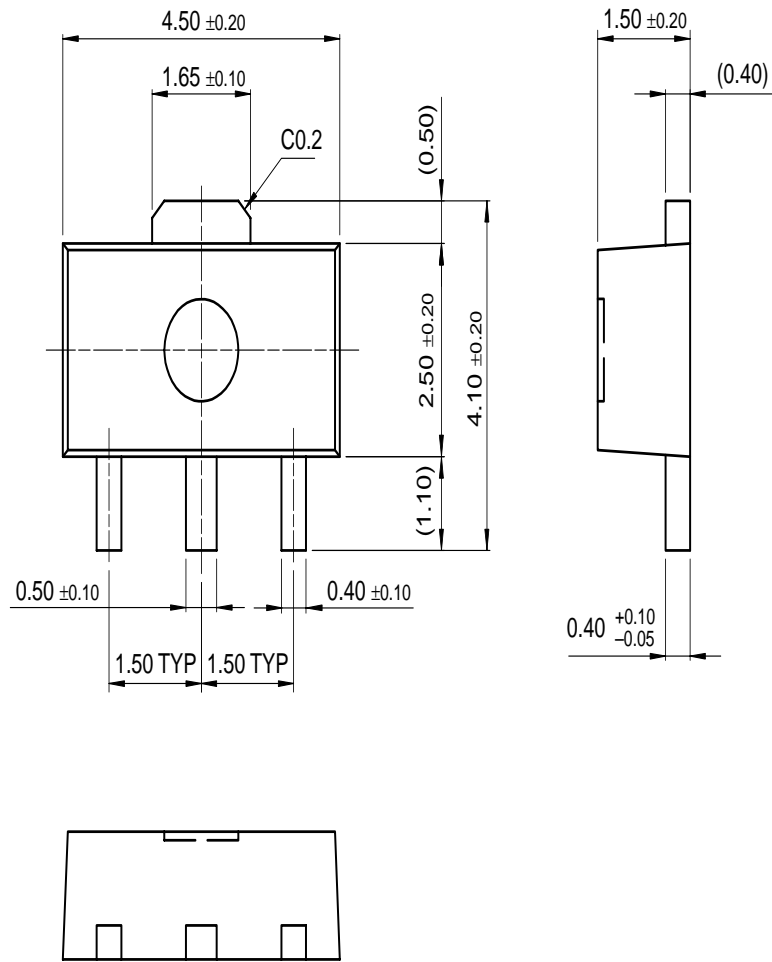


Figure 6. Power Derating

Package Dimensions

SOT-89



Dimensions in Millimeters

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CoolFET™	FASTr™	MicroFET™	PowerTrench®	SuperSOT™-6
CROSSVOLT™	FRFET™	MicroPak™	QFET™	SuperSOT™-8
DOMET™	GlobalOptoisolator™	MICROWIRE™	QS™	SyncFET™
EcoSPARK™	GTO™	MSX™	QT Optoelectronics™	TinyLogic™
E ² CMOS™	HiSeC™	MSXPro™	Quiet Series™	TruTranslation™
EnSigna™	I ² C™	OCX™	RapidConfigure™	UHC™
Across the board. Around the world.™		OCXPro™	RapidConnect™	UltraFET®
The Power Franchise™		OPTOLOGIC®	SILENT SWITCHER®	VCX™
Programmable Active Droop™		OPTOPLANAR™	SMART START™	

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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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