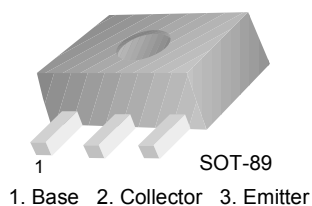


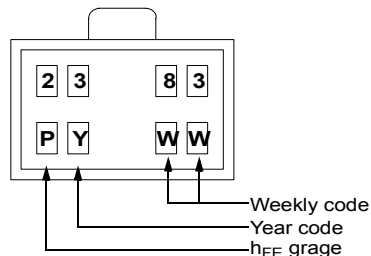
FJC2383

NPN Epitaxial Silicon Transistor

Color TV Audio Output & Color TV Vertical Deflection Output



Marking



Absolute Maximum Ratings T_a = 25°C unless otherwise noted

Symbol	Parameter	Ratings	Units
V _{CB0}	Collector-Base Voltage	160	V
V _{CEO}	Collector-Emitter Voltage	160	V
V _{EBO}	Emitter-Base Voltage	6	V
I _C	Collector Current	1	A
I _B	Base Current	0.5	A
P _C	Collector Power Dissipation	500	mW
T _J	Junction Temperature	150	°C
T _{STG}	Storage Temperature	-55 ~ 150	°C

Electrical Characteristics T_a = 25°C unless otherwise noted

Symbol	Parameter	Test Condition	Min.	Typ.	Max.	Units
I _{CB0}	Collector Cut-off Current	V _{CB} = 150V, I _E = 0			1	μA
I _{EBO}	Emitter Cut-off Current	V _{EB} = 6V, I _C = 0			1	μA
BV _{CEO}	Collector-Emitter Breakdown Voltage	I _C = 10mA, I _B = 0	160			V
h _{FE}	DC Current Gain	V _{CE} = 5V, I _C = 200mA	100		320	
V _{CE(sat)}	Collector-Emitter Saturation Voltage	I _C = 500mA, I _B = 50mA			1.5	V
V _{BE(on)}	Base-Emitter On Voltage	V _{CE} = 5V, I _C = 5mA	0.45		0.75	V
f _T	Current Gain Bandwidth Product	V _{CE} = 5V, I _C = 200mA	20	100		MHz
C _{ob}	Output Capacitance	V _{CB} = 10V, I _E = 0, f = 1MHz			20	pF

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
2383	FJC2383	SOT-89	13"	--	4,000

Typical Performance Characteristics

Figure 1. Static Characteristic

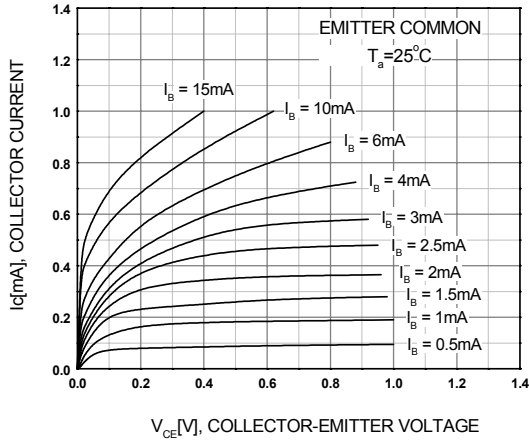


Figure 2. DC Current Gain

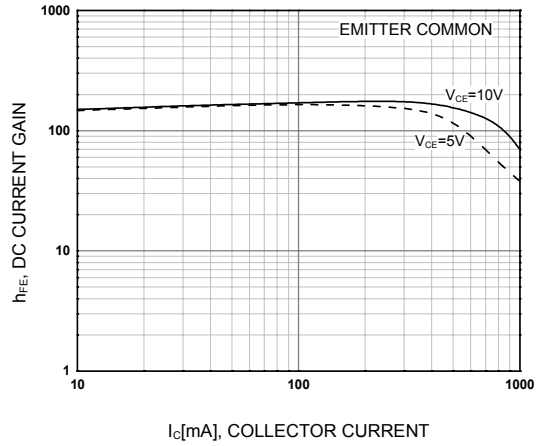


Figure 3. DC Current Gain

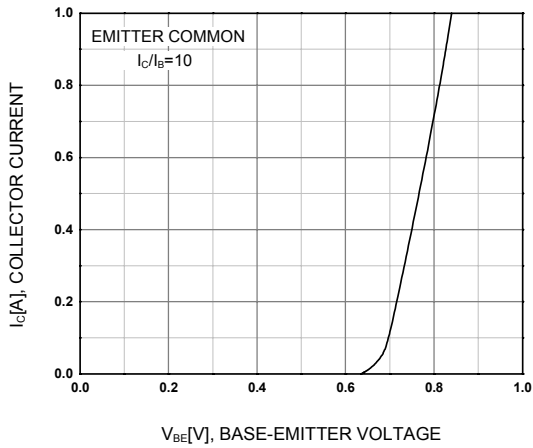


Figure 4. Collector-Emitter Saturation Voltage

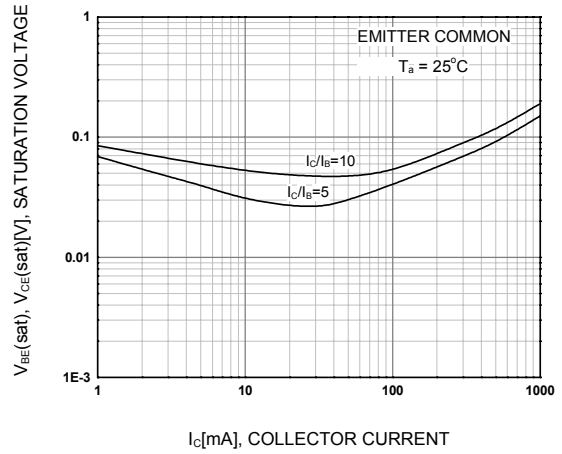


Figure 5. Base-Emitter On Voltage

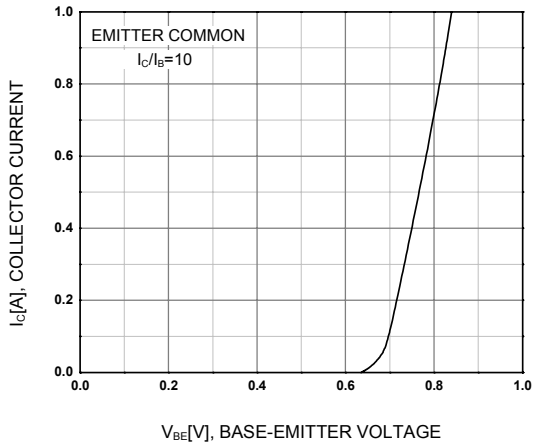
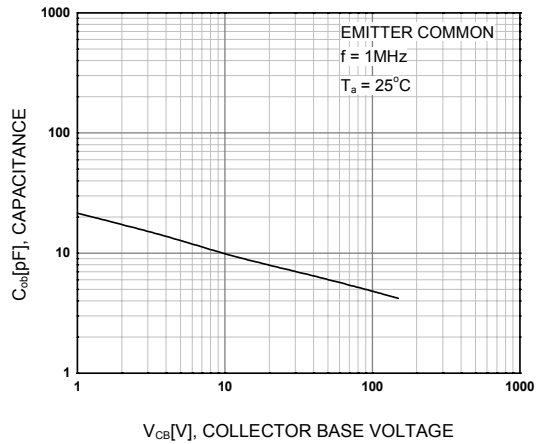
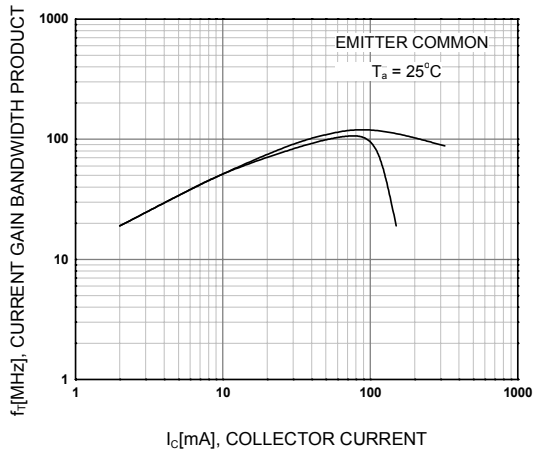


Figure 6. Collectro Output Capacitance



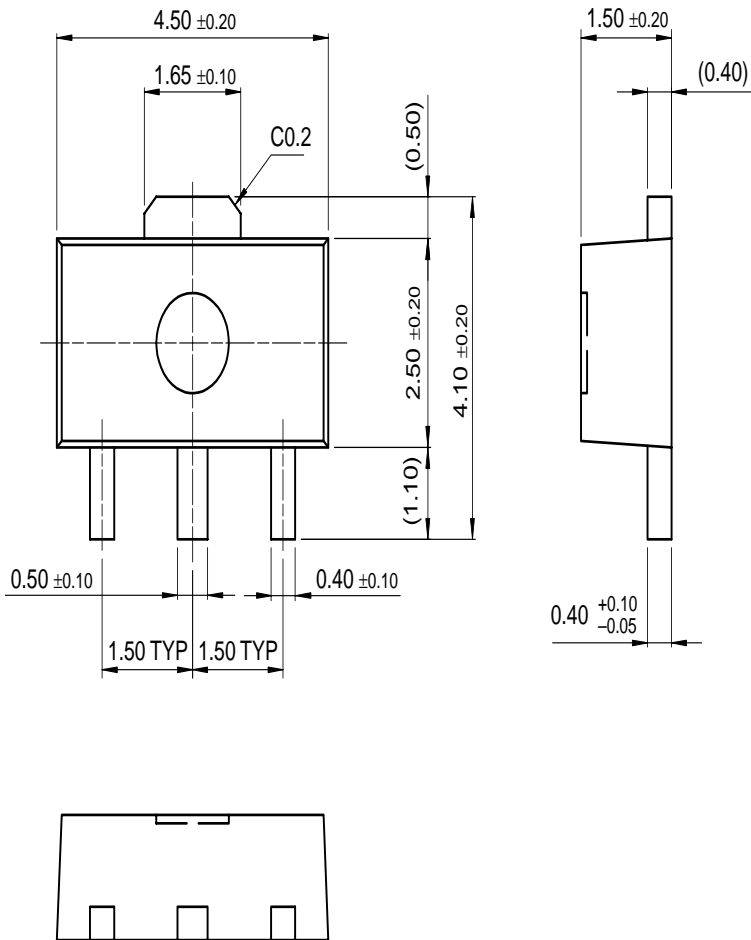
Typical Performance Characteristics (Continued)

Figure 7. Current Gain Bandwidth Product



Mechanical Dimensions

SOT-89



Dimensions in Millimeters

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CROSSVOLT™	GTO™	MICROWIRE™	Quiet Series™	UHC™
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EcoSPARK™	I ² C™	MSXPro™	RapidConnect™	UniFET™
E ² CMOS™	i-Lo™	OCX™	μSerDes™	VCX™
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FACT™	IntelliMAX™	OPTOLOGIC®	SMART START™	
FACT Quiet Series™		OPTOPLANAR™	SPM™	
Across the board. Around the world.™		PACMAN™	Stealth™	
The Power Franchise®		POP™	SuperFET™	
Programmable Active Droop™		Power247™	SuperSOT™-3	
		PowerEdge™	SuperSOT™-6	

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PRODUCT STATUS DEFINITIONS

Definition of Terms

Datasheet Identification	Product Status	Definition
Advance Information	Formative or In Design	This datasheet contains the design specifications for product development. Specifications may change in any manner without notice.
Preliminary	First Production	This datasheet contains preliminary data, and supplementary data will be published at a later date. Fairchild Semiconductor reserves the right to make changes at any time without notice in order to improve design.
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.
Obsolete	Not In Production	This datasheet contains specifications on a product that has been discontinued by Fairchild semiconductor. The datasheet is printed for reference information only.

Rev. 116

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FJC2383

NPN Epitaxial Silicon Transistor

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Features

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Product status/pricing/packageing

BUY

Product	Product status	Pb-free Status	Pricing*	Package type	Leads	Packing method	Package Marking Convention**
FJC2383OTF	Full Production	Full Production	\$0.141	SOT-89	3	TAPE REEL	Line 1: 2383 Line 2: O&3
FJC2383YTF	Full Production	Full Production	\$0.141	SOT-89	3	TAPE REEL	Line 1: 2383 Line 2: Y&3

* Fairchild 1,000 piece Budgetary Pricing

** A sample button will appear if the part is available through Fairchild's on-line samples program. If there is no sample button, please contact a [Fairchild distributor](#) to obtain samples



Indicates product with Pb-free second-level interconnect. For more information [click here](#).

Package marking information for product FJC2383 is available. [Click here for more information](#).

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Models

Package & leads	Condition	Temperature range	Vcc range	Software version	Revision date
PSPICE					
SOT-89-3	Electrical/Thermal	-55°C to 150°C	0V to 1V	9.2	Jun 17, 2004

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Qualification Support

Click on a product for detailed qualification data

Product
FJC2383OTF
FJC2383YTF

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