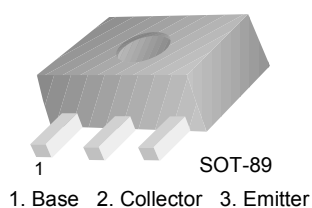


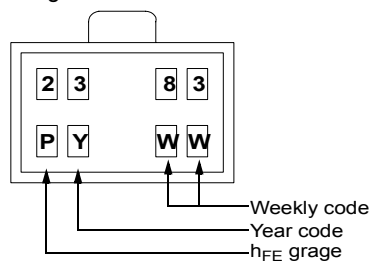
# FJC2383

## NPN Epitaxial Silicon Transistor

Color TV Audio Output & Color TV Vertical Deflection Output



Marking



### Absolute Maximum Ratings T<sub>a</sub> = 25°C unless otherwise noted

Symbol	Parameter	Ratings	Units
V <sub>CB0</sub>	Collector-Base Voltage	160	V
V <sub>CEO</sub>	Collector-Emitter Voltage	160	V
V <sub>EBO</sub>	Emitter-Base Voltage	6	V
I <sub>C</sub>	Collector Current	1	A
I <sub>B</sub>	Base Current	0.5	A
P <sub>C</sub>	Collector Power Dissipation	500	mW
T <sub>J</sub>	Junction Temperature	150	°C
T <sub>STG</sub>	Storage Temperature	-55 ~ 150	°C

### Electrical Characteristics T<sub>a</sub> = 25°C unless otherwise noted

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

**h<sub>FE</sub> Classification**

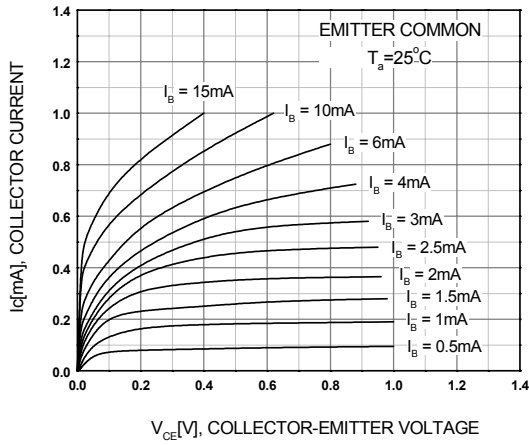
Classification	O	Y
h <sub>FE</sub>	100 ~ 200	160 ~ 320

**Package Marking and Ordering Information**

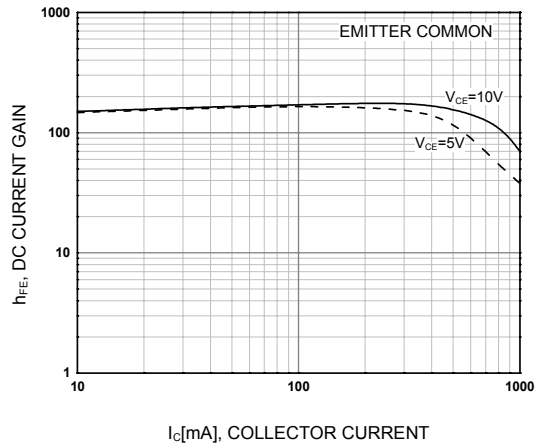
Device Marking	Device	Package	Reel Size	Tape Width	Quantity
2383	FJC2383	SOT-89	13"	--	4,000

## Typical Performance Characteristics

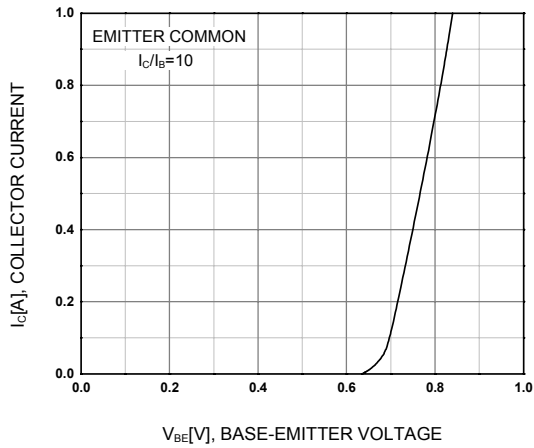
**Figure 1. Static Characteristic**



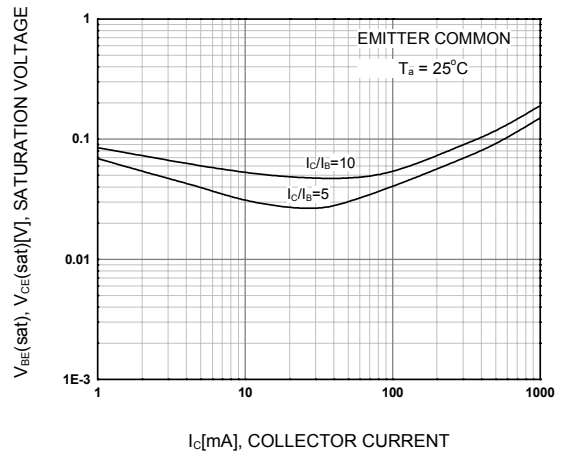
**Figure 2. DC Current Gain**



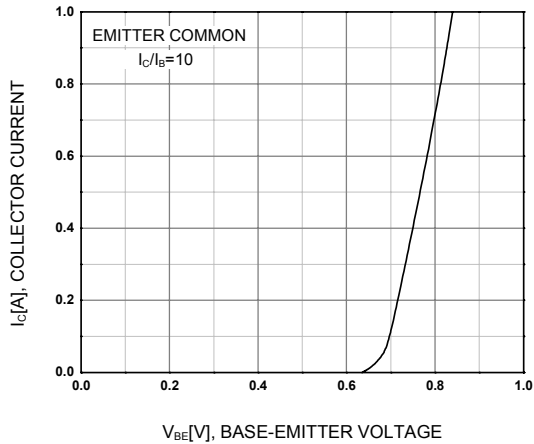
**Figure 3. DC Current Gain**



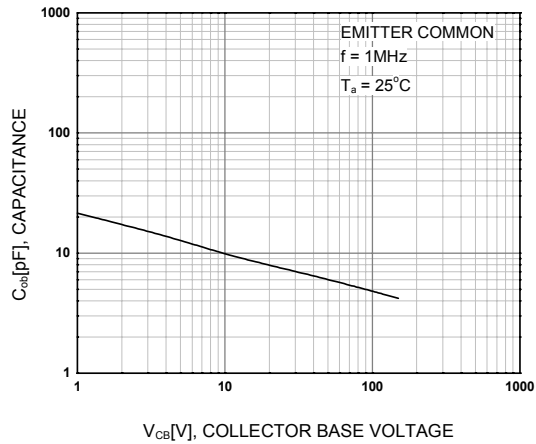
**Figure 4. Collector-Emitter Saturation Voltage**



**Figure 5. Base-Emitter On Voltage**

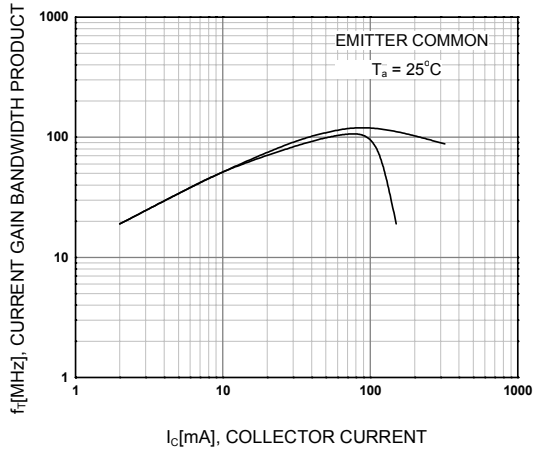


**Figure 6. Collectro Output Capacitance**



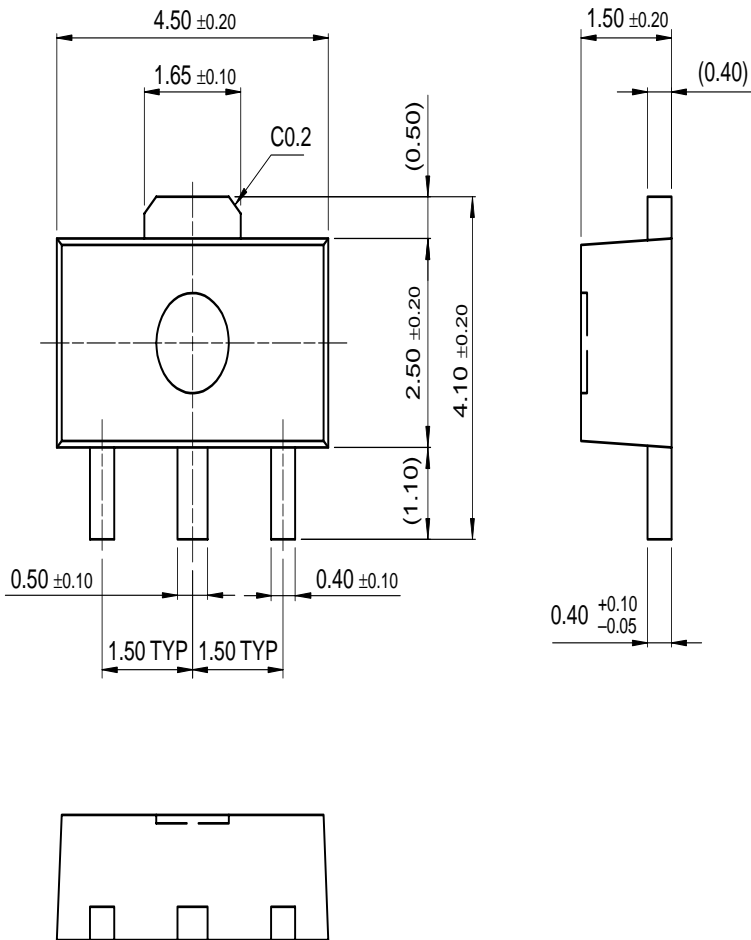
**Typical Performance Characteristics** (Continued)

**Figure 7. Current Gain Bandwidth Product**



Mechanical Dimensions

SOT-89



Dimensions in Millimeters

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CoolFET™	GlobalOptoisolator™	MicroPak™	QT Optoelectronics™	TruTranslation™
CROSSVOLT™	GTO™	MICROWIRE™	Quiet Series™	UHC™
DOME™	HiSeC™	MSX™	RapidConfigure™	UltraFET®
EcoSPARK™	I <sup>2</sup> C™	MSXPro™	RapidConnect™	UniFET™
E <sup>2</sup> CMOS™	i-Lo™	OCX™	μSerDes™	VCX™
EnSigna™	ImpliedDisconnect™	OCXPro™	SILENT SWITCHER®	Wire™
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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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. 116



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