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## ON Semiconductor®

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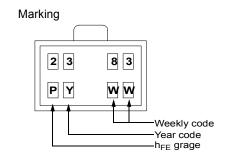
## **FJC2383**

## **NPN Epitaxial Silicon Transistor**

## **Color TV Audio Output & Color TV Vertical Deflection Output**



1. Base 2. Collector 3. Emitter



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

Symbol	Parameter	Ratings	Units	
V <sub>CBO</sub>	Collector-Base Voltage	160		
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	Α	
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.	Тур.	Max.	Units
I <sub>CBO</sub>	Collector Cut-off Current	V <sub>CB</sub> = 150V, I <sub>E</sub> = 0			1	μА
I <sub>EBO</sub>	Emitter Cut-off Current	$V_{EB} = 6V, I_{C} = 0$			1	μΑ
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</sub> (sat)	Collector-Emitter Saturation Voltage	I <sub>C</sub> = 500mA, I <sub>B</sub> = 50mA			1.5	V
V <sub>BE</sub> (on)	Base-Emitter On Voltage	$V_{CE}$ = 5V, $I_{C}$ = 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	0	Υ	
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

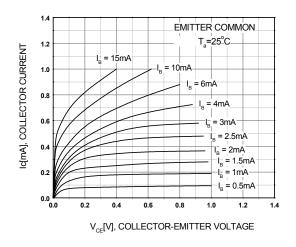


Figure 2. DC Current Gain

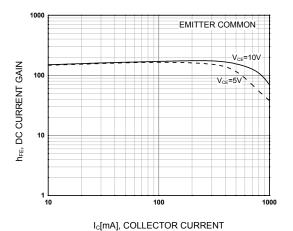


Figure 3. DC Current Gain

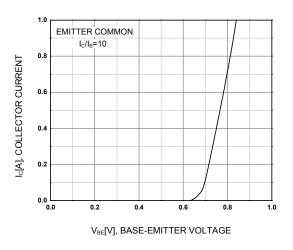


Figure 4. Collector-Emitter Saturation Voltage

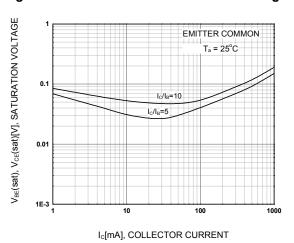


Figure 5. Base-Emitter On Voltage

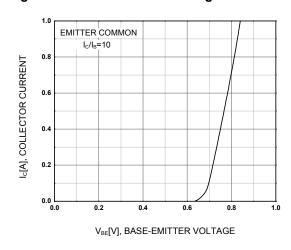
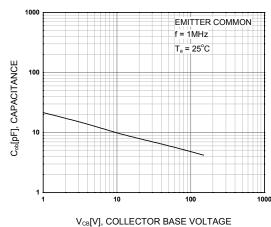


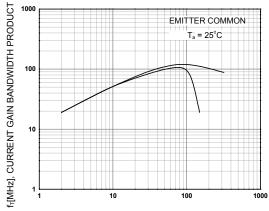
Figure 6. Collectro Output Capacitance



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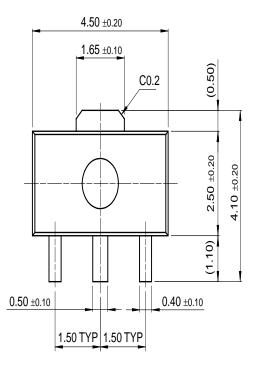
## Typical Performance Characteristics (Continued)

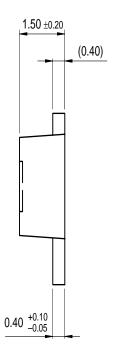
Figure 7. Current Gain Bandwidth Product

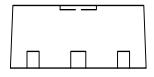


### **Mechanical Dimensions**

## **SOT-89**







Dimensions in Millimeters

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SuperSOT™-6

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