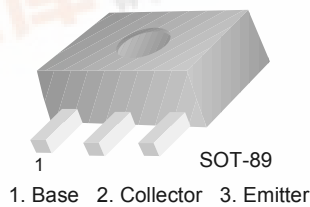




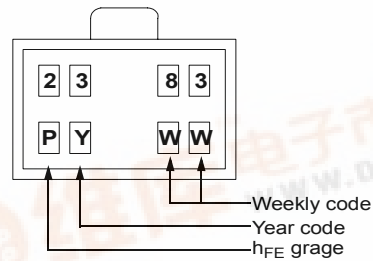
July 2005

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 _{CBO}	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 _{CBO}	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

FJC2383 NPN Epitaxial Silicon Transistor



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

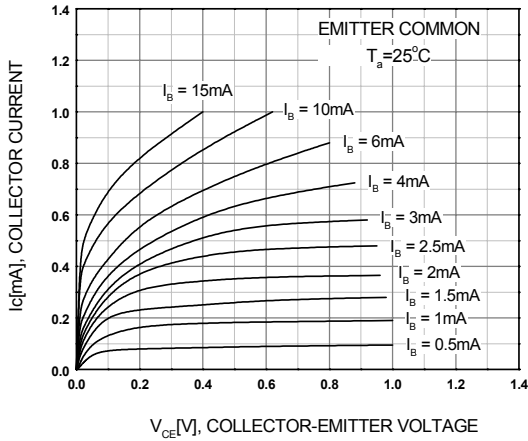


Figure 2. DC Current Gain

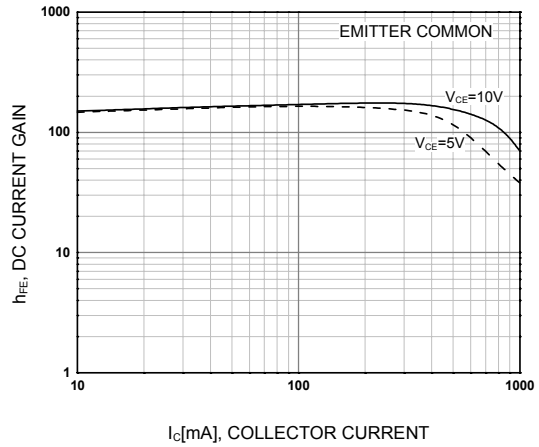


Figure 3. DC Current Gain

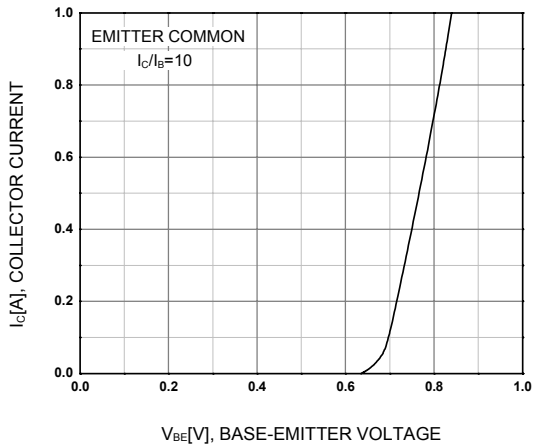


Figure 4. Collector-Emitter Saturation Voltage

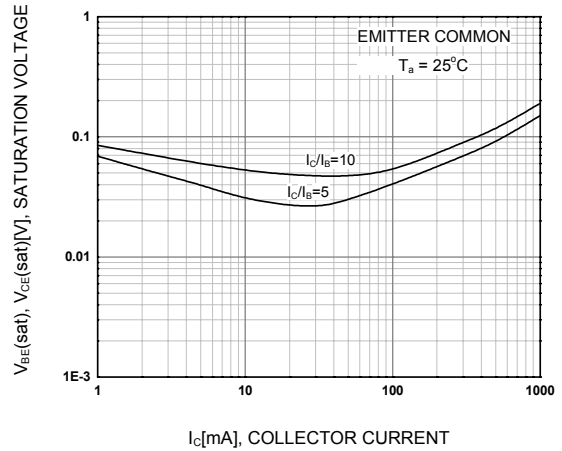


Figure 5. Base-Emitter On Voltage

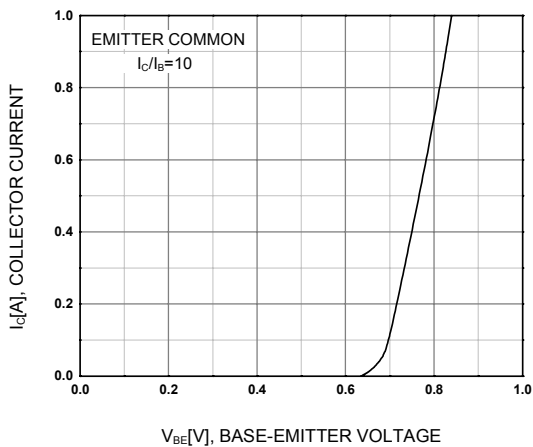
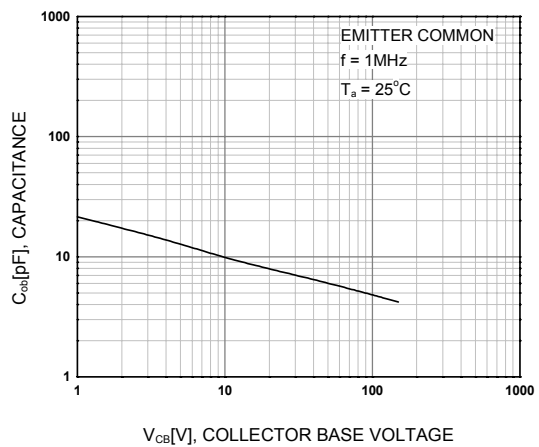
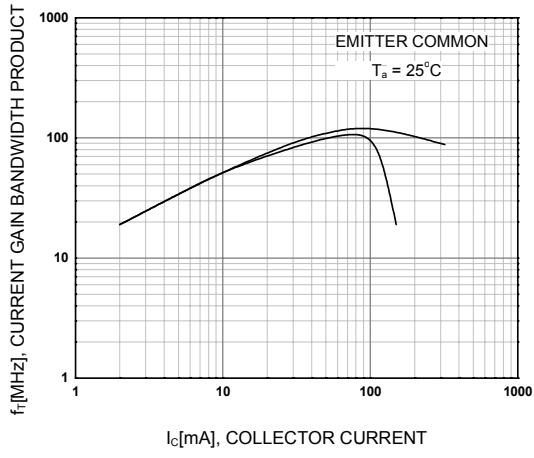


Figure 6. Collectro Output Capacitance



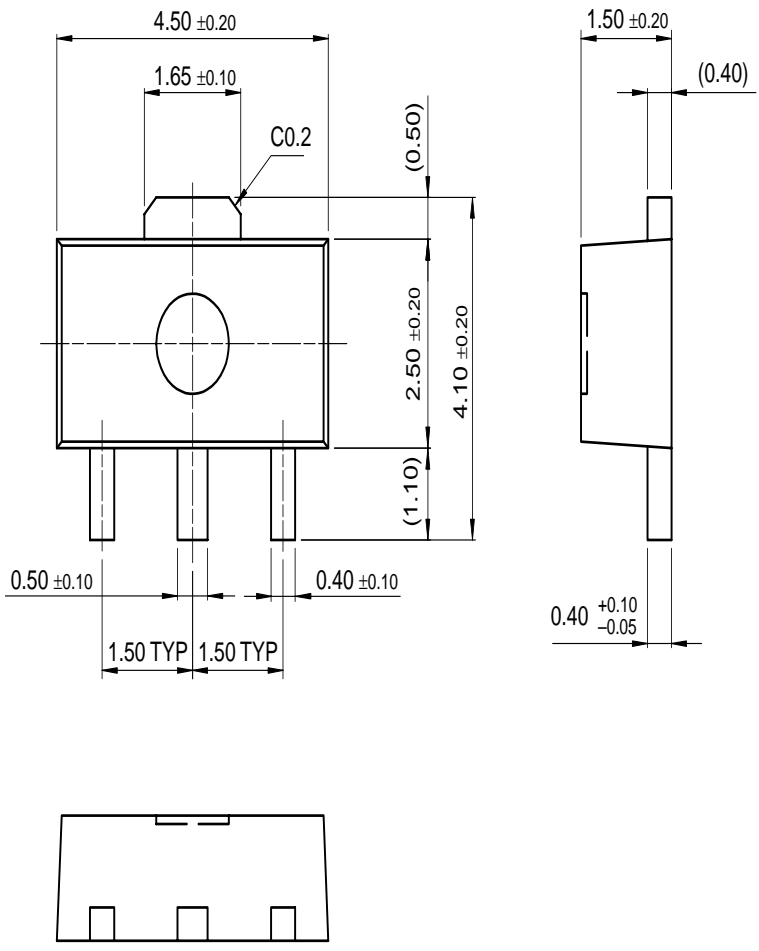
Typical Performance Characteristics (Continued)

Figure 7. Current Gain Bandwidth Product



Mechanical Dimensions

SOT-89



Dimensions in Millimeters

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CoolFET™	GlobalOptoisolator™	MicroPak™	QT Optoelectronics™	TruTranslation™
CROSSVOLT™	GTO™	MICROWIRE™	Quiet Series™	UHC™
DOME™	HiSeC™	MSX™	RapidConfigure™	UltraFET®
EcoSPARK™	I ² C™	MSXPro™	RapidConnect™	UniFET™
E ² 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™	
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		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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