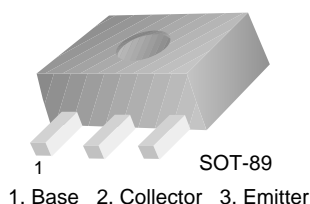


# FJC790

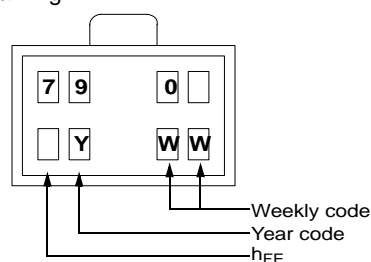
## PNP Epitaxial Silicon Transistor

### Camera Strobe Flash Application

- Complement to FJC690
- High Collector Current
- Low Collector-Emitter Saturation Voltage



Marking



### Absolute Maximum Ratings \* $T_a = 25^\circ\text{C}$ unless otherwise noted

Symbol	Parameter	Value	Units
$V_{CBO}$	Collector-Base Voltage	-50	V
$V_{CEO}$	Collector-Emitter Voltage	-40	V
$V_{EBO}$	Emitter-Base Voltage	-5	V
$I_C$	Collector Current (DC)	-2	A
$P_C$	Power Dissipation	0.5	W
$T_J$	Junction Temperature	150	$^\circ\text{C}$
$T_{STG}$	Storage Temperature	- 55 ~ 150	$^\circ\text{C}$

\* These ratings are limiting values above which the serviceability of any semiconductor device may be impaired.

### Electrical Characteristics \* $T_a = 25^\circ\text{C}$ unless otherwise noted

Symbol	Parameter	Test Condition	Min.	Typ.	Max.	Units
$BV_{CBO}$	Collector-Base Breakdown Voltage	$I_C = -100\mu\text{A}, I_E = 0$	-50			V
$BV_{CEO}$	Collector-Emitter Breakdown Voltage	$I_C = -10\text{mA}, I_B = 0$	-40			V
$BV_{EBO}$	Emitter-Base Breakdown Voltage	$I_E = -100\mu\text{A}, I_C = 0$	-5			V
$I_{CEO}$	Collector Cut-off Current	$V_{CE} = -35\text{V}, V_B = 0$			-0.1	$\mu\text{A}$
$I_{EBO}$	Emitter Cut-off Current	$V_{EB} = -4\text{V}, I_C = 0$			-0.1	$\mu\text{A}$
$h_{FE}$	DC Current Gain	$V_{CE} = -2\text{V}, I_C = -10\text{mA}$ $V_{CE} = -2\text{V}, I_C = -500\text{mA}$ $V_{CE} = -2\text{V}, I_C = -1\text{A}$ $V_{CE} = -2\text{V}, I_C = -2\text{A}$	300 250 200 150		800	
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	$I_C = -0.5\text{A}, I_B = -5\text{mA}$ $I_C = -1\text{A}, I_B = -10\text{mA}$ $I_C = -2\text{A}, I_B = -50\text{mA}$			-250 -350 -450	mV mV mV
$V_{BE(sat)}$	Base-Emitter Saturation Voltage	$I_C = -1\text{A}, I_B = -10\text{mA}$			-0.9	V
$V_{BE(on)}$	Base-Emitter On Voltage	$V_{CE} = -2\text{V}, I_C = 1\text{A}$			-0.8	V
$C_{OB}$	Collector Output Capacitance	$V_{CB} = -10\text{V}, I_E = 0, f = 1\text{MHz}$		20		pF

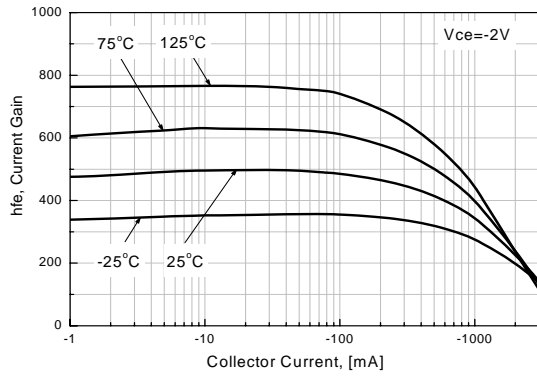
\* Pulse Test: Pulse Width  $\leq 300\mu\text{s}$ , Duty Cycle  $\leq 2.0\%$

**Package Marking and Ordering Information**

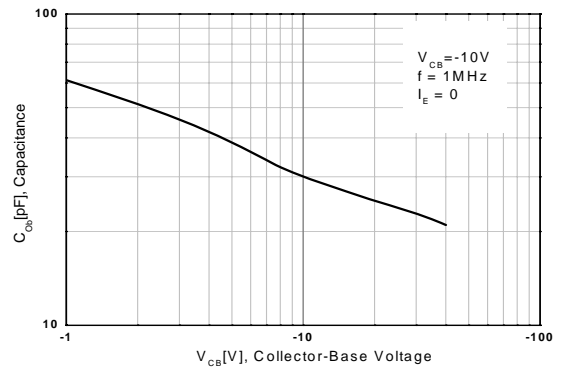
Device Marking	Device	Package	Reel Size	Tape Width	Quantity
790	FJC790	SOT-89	13"	--	4,000

## Typical Performance Characteristics

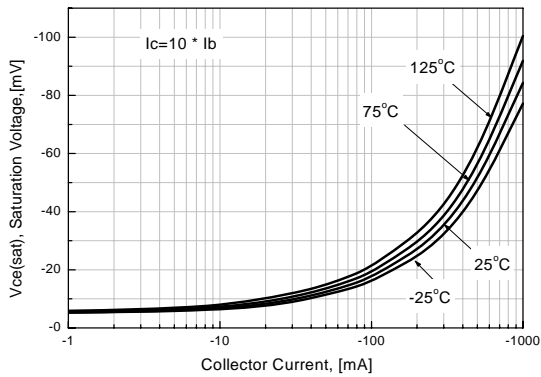
**Figure 1. DC current Gain**



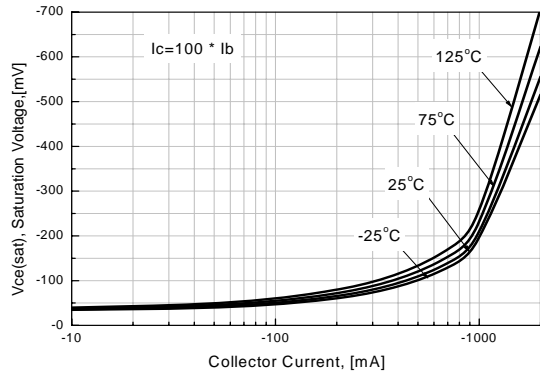
**Figure 2. Collector-Base Capacitance**



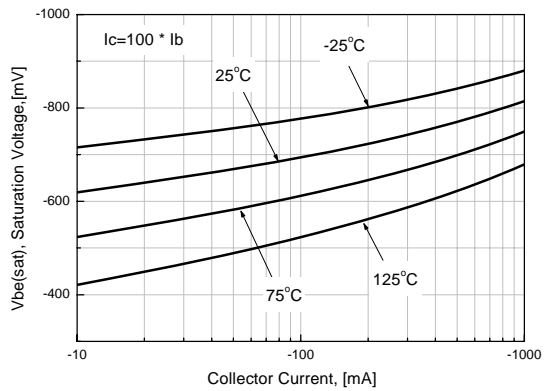
**Figure 3. Collector-Emitter Saturation Voltage**



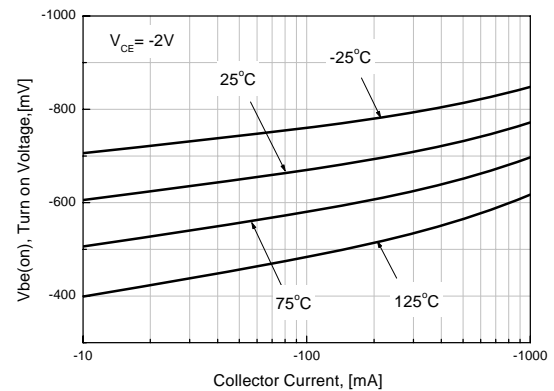
**Figure 4. Collector-Emitter Saturation Voltage**



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

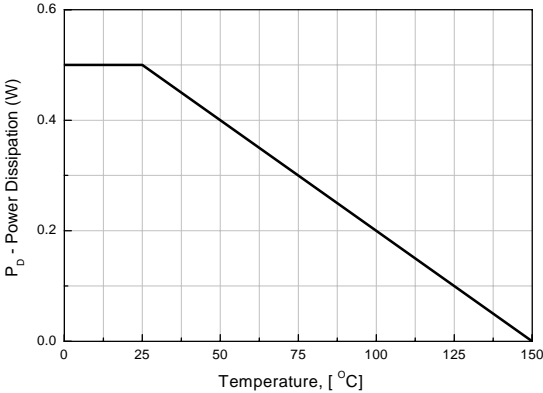


**Figure 6. Base-Emitter Turn on Voltage**



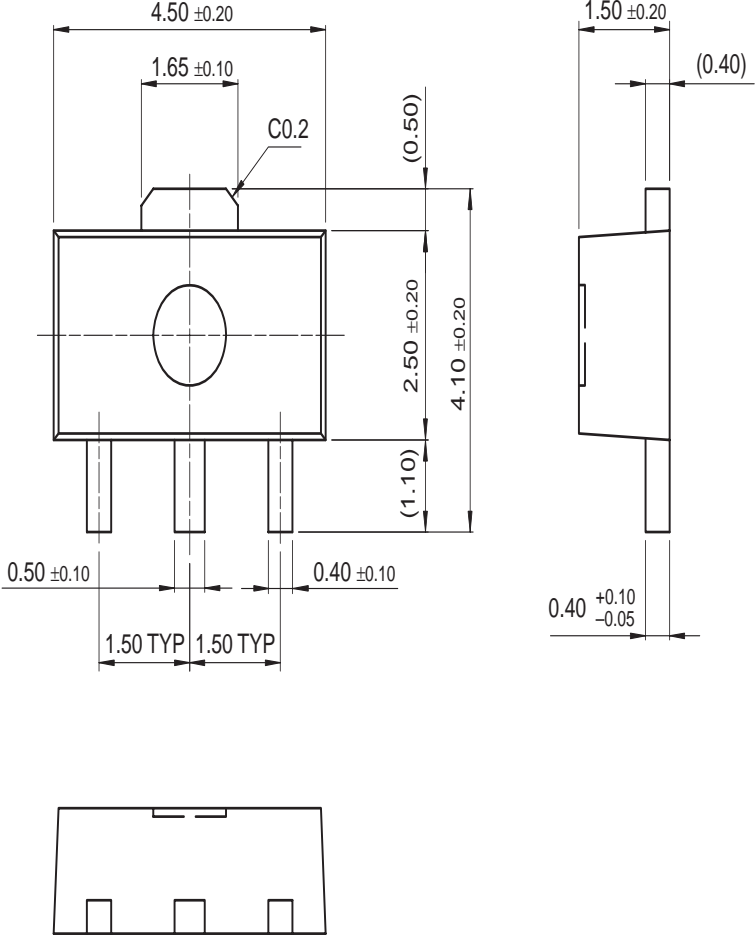
### Typical Performance Characteristics

Figure 7. Power Dissipation vs Ambient Temperature



Mechanical Dimensions

SOT-89




Dimensions in Millimeters



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