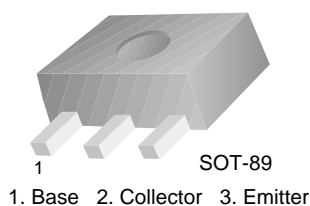


# FJC690

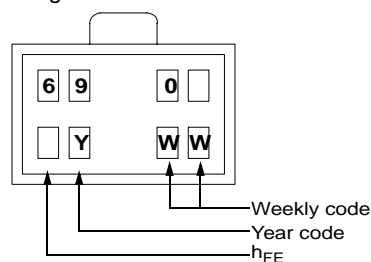
## NPN Epitaxial Silicon Transistor

### Camera Strobe Flash Application

- Complement to FJC790
- High Collector Current
- Low Collector-Emitter Saturation Voltage



Marking



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

Symbol	Parameter	Value	Units
V <sub>CB0</sub>	Collector-Base Voltage	45	V
V <sub>CEO</sub>	Collector-Emitter Voltage	45	V
V <sub>EBO</sub>	Emitter-Base Voltage	5	V
I <sub>C</sub>	Collector Current (DC)	2	A
P <sub>C</sub>	Power Dissipation	0.5	W
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

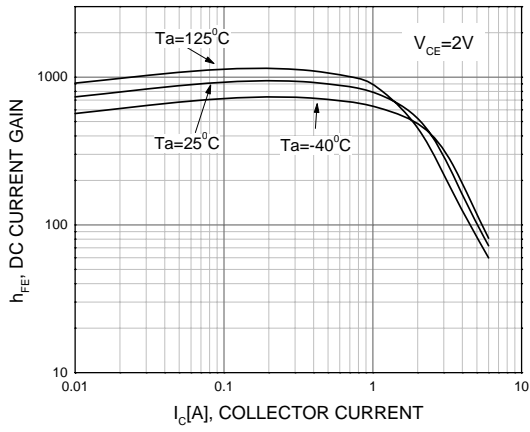
Symbol	Parameter	Test Condition	Min.	Typ.	Max.	Units
BV <sub>CB0</sub>	Collector-Base Breakdown Voltage	I <sub>C</sub> = 100μA, I <sub>E</sub> = 0	45			V
BV <sub>CEO</sub>	Collector-Emitter Breakdown Voltage	I <sub>C</sub> = 10mA, I <sub>B</sub> = 0	45			V
BV <sub>EBO</sub>	Emitter-Base Breakdown Voltage	I <sub>E</sub> = 100μA, I <sub>C</sub> = 0	5			V
I <sub>CEO</sub>	Collector Cut-off Current	V <sub>CE</sub> = 35V, V <sub>B</sub> = 0			0.1	μA
I <sub>EBO</sub>	Emitter Cut-off Current	V <sub>EB</sub> = 4V, I <sub>C</sub> = 0			0.1	μA
h <sub>FE</sub>	DC Current Gain	V <sub>CE</sub> = 2V, I <sub>C</sub> = 100mA V <sub>CE</sub> = 2V, I <sub>C</sub> = 1mA V <sub>CE</sub> = 2V, I <sub>C</sub> = 2mA	500 400 150			
V <sub>CE(sat)</sub>	Collector-Emitter Saturation Voltage	I <sub>C</sub> = 0.1A, I <sub>B</sub> = 0.5mA I <sub>C</sub> = 1A, I <sub>B</sub> = 5mA			80 300	mV mV
V <sub>BE(sat)</sub>	Base-Emitter Saturation Voltage	I <sub>C</sub> = 1A, I <sub>B</sub> = 10mA			0.9	V
V <sub>BE(on)</sub>	Base-Emitter On Voltage	V <sub>CE</sub> = 2V, I <sub>C</sub> = 1A			0.85	V
C <sub>OB</sub>	Collector Output Capacitance	V <sub>CB</sub> = 10V, I <sub>E</sub> = 0, f = 1MHz		20		pF

**Package Marking and Ordering Information**

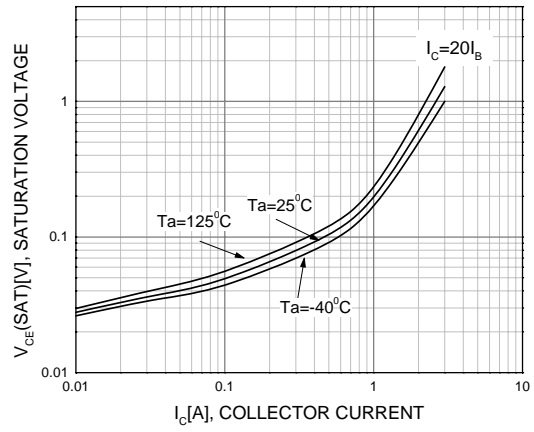
Device Marking	Device	Package	Reel Size	Tape Width	Quantity
690	FJC690	SOT-89	13"	--	4,000

## Typical Performance Characteristics

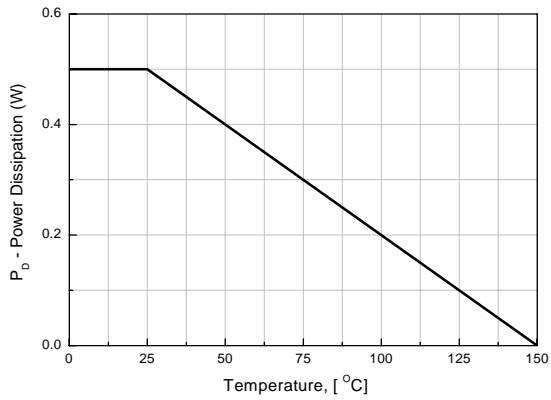
**Figure 1. DC current Gain**



**Figure 2. Collector-Emitter Saturation Voltage**

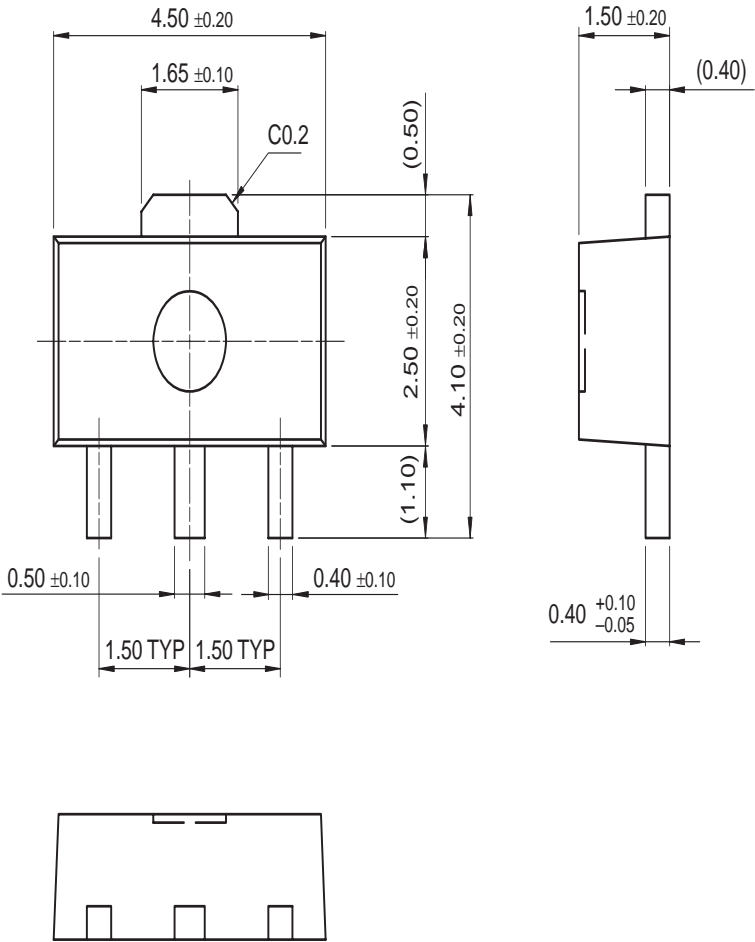


**Figure 3. Power Dissipation vs Ambient Temperature**



Mechanical Dimensions

SOT-89



Dimensions in Millimeters



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CorePLUS™	GTO™	Power-SPM™	The Power Franchise®
CROSSVOLT™	<i>i-Lo</i> ™	PowerTrench®	<b>the power</b> franchise
CTL™	IntelliMAX™	Programmable Active Droop™	TinyBoost™
Current Transfer Logic™	ISOPLANAR™	QFET®	TinyBuck™
EcoSPARK®	MegaBuck™	QS™	TinyLogic®
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Fairchild®	MicroFET™	Quiet Series™	TinyPower™
Fairchild Semiconductor®	MicroPak™	RapidConfigure™	TinyPWM™
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FAST®	OPTOPLANAR®	STEALTH™	UHC®
FastvCore™	 ®	SuperFET™	UniFET™
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