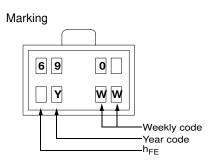


# FJC690 NPN Epitaxial Silicon Transistor

# **Camera Strobe Flash Application**

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





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

Symbol	Parameter	Value	Units	
V <sub>CBO</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	А	
P <sub>C</sub>	Power Dissipation	0.5	W	
TJ	Junction Temperature	150	°C	
T <sub>STG</sub>	Storage Temperature	- 55 ~ 150	°C	

# Electrical Characteristics Ta = 25°C unless otherwise noted

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

July 2007

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

# FJC690 NPN Epitaxial Silicon Transistor

FJC690 NPN Epitaxial Silicon Transistor

# **Typical Performance Characteristics**

## Figure 1. DC current Gain

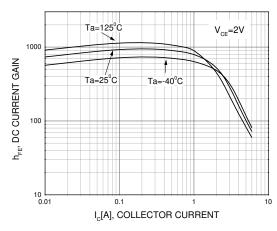


Figure 3. Power Dissipation vs Ambient Temperature

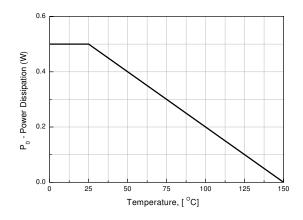
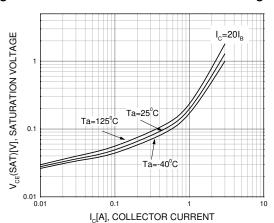
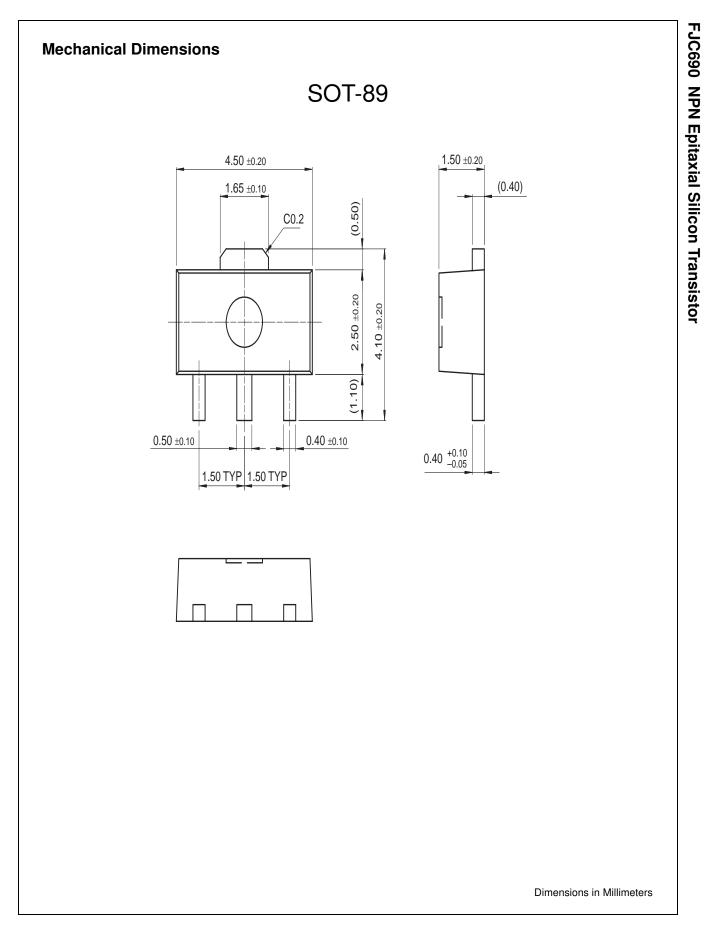


Figure 2. Collector-Emitter Saturation Voltage







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Product	Product status	Pb-free Status	Pricing*	Package type	Leads	Packing method	Package Marking Convention**
FJC690TF	Full Production	Full Production	\$0.218	<u>SOT-89</u>	3	TAPE REEL	<u>Line 1:</u> 690 <u>Line 2:</u> &E&3

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