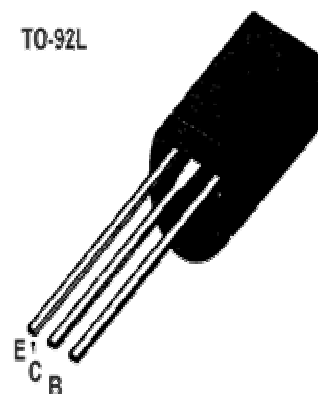


**APPLICATION:** Voltage Regulator, Relay Lamp Driver

Electrical Equipment Applications.

**MAXIMUM RATINGS** (Ta=25°C)

PARAMETER	SYMBOL	RATING	UNIT
Collector-base voltage	V <sub>CB0</sub>	-60	V
Collector-emitter voltage	V <sub>CEO</sub>	-50	V
Emitter-base voltage	V <sub>EBO</sub>	-5	V
Collector current	I <sub>c</sub>	-1	A
Collector Power Dissipation	P <sub>c</sub>	900	mW
Junction Temperature	T <sub>J</sub>	150	°C
Storage Temperature Range	T <sub>stg</sub>	- 55~150	°C



**ELECTRICAL CHARACTERISTICS** (Ta=25°C)

PARAMETER	SYMBOL	MIN.	TYP.	MAX.	UNIT	TEST CONDITION
DC Current Gain	h <sub>FE</sub>	60		320		V <sub>CE</sub> = -2 V, I <sub>c</sub> = -50 mA
Collector Cut-off Current	I <sub>CB0</sub>			-1	μA	V <sub>CB</sub> = -50 V, I <sub>E</sub> =0
Emitter Cut-off Current	I <sub>EBO</sub>			-1	μA	V <sub>EB</sub> = -4 V, I <sub>c</sub> =0
Collector-Base Breakdown Voltage	BV <sub>CB0</sub>	-60			V	I <sub>c</sub> = -10 μA, I <sub>E</sub> =0
Collector-Emitter Breakdown Voltage	BV <sub>CEO</sub>	-50			V	I <sub>c</sub> = -1 mA, I <sub>B</sub> =0
Emitter-Base Breakdown Voltage	BV <sub>EBO</sub>	-5			V	I <sub>E</sub> = -10 μA, I <sub>c</sub> =0
Collector-Emitter Saturation Voltage	V <sub>CE(sat)</sub>		-0.2	-0.7	V	I <sub>c</sub> = -500 mA, I <sub>B</sub> = -50 mA
Base-Emitter Saturation Voltage	V <sub>BE(sat)</sub>		-0.85	-1.2	V	I <sub>c</sub> = -500 mA, I <sub>B</sub> = -50 mA
Gain bandwidth product	f <sub>T</sub>		150		MHz	I <sub>c</sub> = -50mA, V <sub>CE</sub> = -10 V
Common Base Output Capacitance	C <sub>ob</sub>		20		PF	V <sub>CB</sub> = -10 V, I <sub>E</sub> =0, f = 1 MHz

### h<sub>FE</sub> Classification

Classification	D	E	F
h <sub>FE</sub>	60~120	100~200	160~320