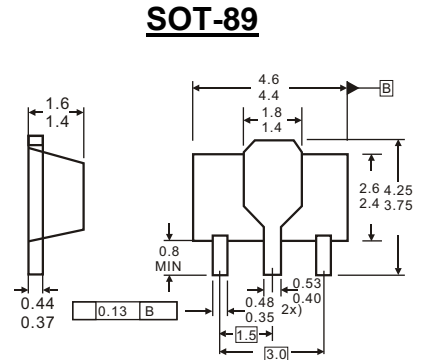


1. BASE
2. COLLECTOR
3. EMITTER

## Features

- ◇ Audio amplifier
- ◇ Flash unit of camera
- ◇ Switching circuit



Dimensions in inches and (millimeters)

## MAXIMUM RATINGS (T<sub>A</sub>=25°C unless otherwise noted)

Symbol	Parameter	Value	Units
V <sub>CB0</sub>	Collector-Base Voltage	40	V
V <sub>CEO</sub>	Collector-Emitter Voltage	30	V
V <sub>EBO</sub>	Emitter-Base Voltage	7	V
I <sub>C</sub>	Collector Current -Continuous	5	A
P <sub>C</sub>	Collector Power Dissipation	750	mW
T <sub>J</sub>	Junction Temperature	150	°C
T <sub>stg</sub>	Storage Temperature	-55-150	°C

## ELECTRICAL CHARACTERISTICS (T<sub>amb</sub>=25°C unless otherwise specified)

Parameter	Symbol	Test conditions	MIN	TYP	MAX	UNIT
Collector-base breakdown voltage	V <sub>(BR)CBO</sub>	I <sub>C</sub> =0.1mA, I <sub>E</sub> =0	40			V
Collector-emitter breakdown voltage	V <sub>(BR)CEO</sub>	I <sub>C</sub> = 1mA, I <sub>B</sub> =0	30			V
Emitter-base breakdown voltage	V <sub>(BR)EBO</sub>	I <sub>E</sub> = 10μA, I <sub>C</sub> =0	7			V
Collector cut-off current	I <sub>CBO</sub>	V <sub>CB</sub> = 10V, I <sub>E</sub> =0			0.1	μA
Emitter cut-off current	I <sub>EBO</sub>	V <sub>EB</sub> =7V, I <sub>C</sub> =0			0.1	μA
DC current gain	h <sub>FE(1)</sub>	V <sub>CE</sub> = 2 V, I <sub>C</sub> =1mA		200		
	h <sub>FE(2)</sub>	V <sub>CE</sub> = 2V, I <sub>C</sub> = 500mA	230		800	
	h <sub>FE(3)</sub>	V <sub>CE</sub> = 2V, I <sub>C</sub> =2A	150			
Collector-emitter saturation voltage	V <sub>CE(sat)</sub>	I <sub>C</sub> =3A, I <sub>B</sub> =0.1A			1	V
Transition frequency	f <sub>T</sub>	V <sub>CE</sub> =6V, I <sub>C</sub> =50mA		150		MHz
Out capacitance	C <sub>ob</sub>	V <sub>CB</sub> =20 V , I <sub>E</sub> =0, f=1MHz			50	pF

## CLASSIFICATION OF h<sub>FE(2)</sub>

Rank	Q	R	S
Range	230-380	340-600	560-800

## Typical Characteristics

Fig.1 Static characteristics

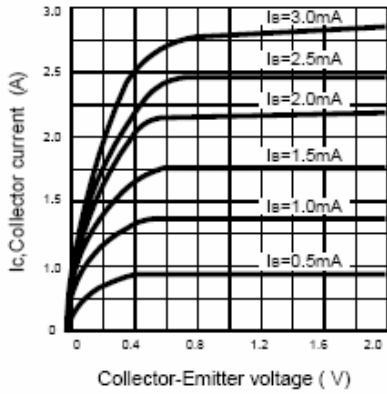


Fig.2 DC current Gain

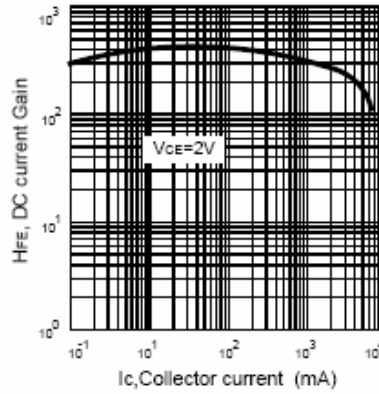


Fig.3 Base-Emitter on Voltage

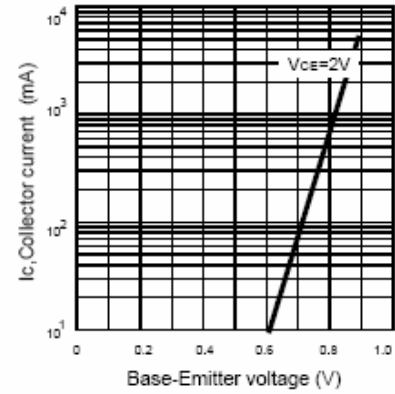


Fig.4 Saturation voltage

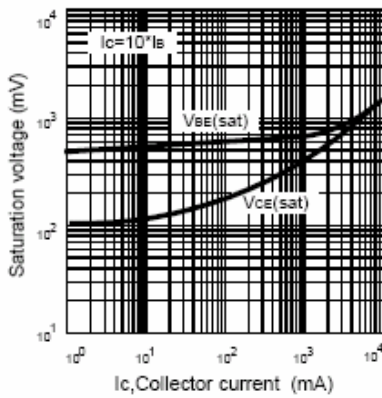


Fig.5 Current gain-bandwidth product

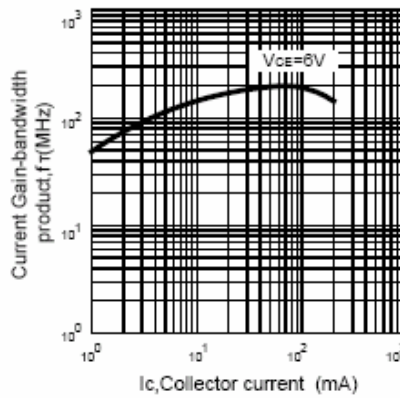


Fig.6 Collector output Capacitance

