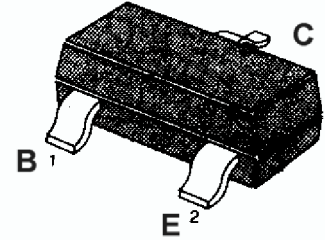


**APPLICATION:** AM Converter, AM/FM IF Amplifier,  
General Purpose Application.

**MAXIMUM RATINGS** (Ta=25°C)

PARAMETER	SYMBOL	RATING	UNIT
Collector-base voltage	V <sub>CB0</sub>	50	V
Collector-emitter voltage	V <sub>CEO</sub>	30	V
Emitter-base voltage	V <sub>EBO</sub>	5	V
Collector current	I <sub>C</sub>	30	mA
Collector Power Dissipation	P <sub>C</sub>	150	mW
Junction Temperature	T <sub>J</sub>	150	°C
Storage Temperature Range	T <sub>stg</sub>	- 55~150	°C

**SOT-23**


1.Base 2 .Emitter 3 .Collector

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

PARAMETER	SYMBOL	MIN.	TYP.	MAX.	UNIT	TEST CONDITION
DC Current Gain	h <sub>FE</sub>	28		198		V <sub>CE</sub> = 5 V, I <sub>C</sub> = 1 mA
Collector Cut-off Current	I <sub>CB0</sub>			0.1	μA	V <sub>CB</sub> =50 V, I <sub>E</sub> =0
Emitter Cut-off Current	I <sub>EBO</sub>			0.1	μA	V <sub>EB</sub> = 5 V, I <sub>C</sub> =0
Collector-Base Breakdown Voltage	BV <sub>CB0</sub>	50			V	I <sub>C</sub> =0.1 mA, I <sub>E</sub> =0
Collector-Emitter Breakdown Voltage	BV <sub>CEO</sub>	30			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> = 0.1mA, I <sub>C</sub> =0
Base-Emitter Voltage	V <sub>BE</sub>		0.7	0.75	V	V <sub>CE</sub> =5 V, I <sub>C</sub> = 1mA
Collector-Emitter Saturation Voltage	V <sub>CE(sat)</sub>			0.3	V	I <sub>C</sub> =10 mA, I <sub>B</sub> =1 mA
Gain bandwidth product	f <sub>T</sub>	150	370		MHz	I <sub>C</sub> = 1 mA, V <sub>CE</sub> =5 V
Common Base Output Capacitance	C <sub>ob</sub>		2	3.5	PF	V <sub>CB</sub> = 10V, I <sub>E</sub> =0, f = 1 MHz
Noise Figure	N <sub>F</sub>		2	4	dB	V <sub>CE</sub> = 5 V, I <sub>C</sub> = 1 mA, f=1MHz, R <sub>g</sub> = 500Ω

**h<sub>FE</sub> Classification And Marking**

Print Mark	11D	11E	11F	11G	11H	11I
Classification	D	E	F	G	H	I
h <sub>FE</sub>	28~45	39~60	54~80	72~108	97~146	132~198