

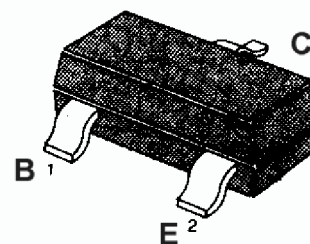
APPLICATION: General purpose applications.

—NPN silicon—

MAXIMUM RATINGS (Ta=25°C)

PARAMETER	SYMBOL	RATING	UNIT
Collector-base voltage	V _{CB0}	30	V
Collector-emitter voltage	V _{CEO}	30	V
Emitter-base voltage	V _{EBO}	5	V
Collector current	I _C	100	mA
Collector Power Dissipation	P _C	310	mW
Junction Temperature	T _J	30150	°C
Storage Temperature Range	T _{stg}	- 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 _{FE}	110		800		V _{CE} = 5 V, I _C = 2 mA
Collector Cut-off Current	I _{CB0}			0.015	μA	V _{CB} = 30 V, I _E =0
Emitter Cut-off Current	I _{EBO}			0.015	μA	V _{EB} = 5V, I _C =0
Collector-Base Breakdown Voltage	BV _{CB0}	30			V	I _C = 0.1 mA, I _E =0
Collector-Emitter Breakdown Voltage	BV _{CEO}	30			V	I _C = 1 mA, I _B =0
Emitter-Base Breakdown Voltage	BV _{EBO}	5			V	I _E = 0.1 mA, I _C =0
Base-Emitter Voltage	V _{BE}			0.7	V	V _{CE} = 5 V, I _C = 2 mA
Collector-Emitter Saturation Voltage	V _{CE(sat)}			0.25	V	I _C = 100 mA, I _B = 0.5 mA
			0.2	0.6		I _C = 100 mA, I _B = 5 mA
Base-Emitter Saturation Voltage	V _{BE(sat)}		0.7		V	I _C = 100mA, I _B = 0.5 mA
			0.9			I _C = 100 mA, I _B = 5 mA
Gain bandwidth product	f _T	150	300		MHz	I _C = 10mA, V _{CE} = 5 V, f=100MHz
Common Base Output Capacitance	C _{ob}		3.5	6	PF	V _{CB} = 10 V, I _E =0, f= 1 MHz
Noise Figure	NF		2	10	dB	V _{CE} = 5 V, I _C = 0.2 mA, f= 1kHz, R _g = 2kΩ

h_{FE} Classification And Marking

Print Mark	8CA	8CB	8CC
Classification	A	B	C
h _{FE}	110~220	200~450	420~800