

Description

Silicon NPN transistor in a SOT-23 Plastic Package

Features

 High P_C and h_{FE} , excellent h_{FE} linearity, complementary pair with CT9015M

Applications

low frequency, low noise pre-amplifier

Symbol	Parameter	Max	Unit
V_{CE0}	collector-emitter voltage	45	V
I_C	collector current (DC)	100	mA

Equivalent Circuit & Pinning


PIN1: Base

PIN 2: Emitter

PIN 3: Collector

 h_{FE} Classifications & Marking

h_{FE} Classifications Symbol	A	B	C	D
h_{FE} Range	60~150	100~300	200~600	400~1000
Marking	HJ6A	HJ6B	HJ6C	HJ6D

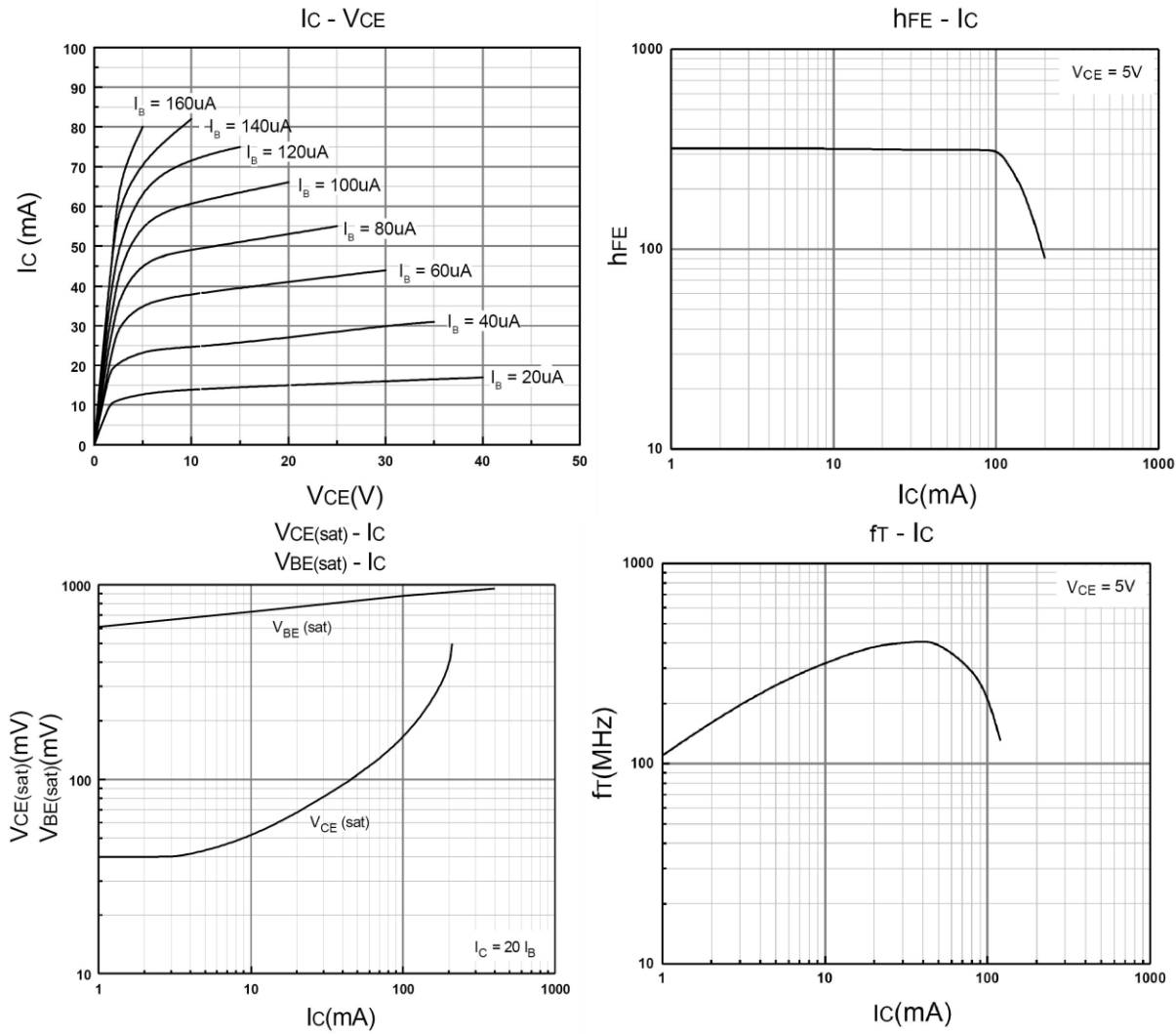
Absolute Maximum Ratings(Ta=25°C)

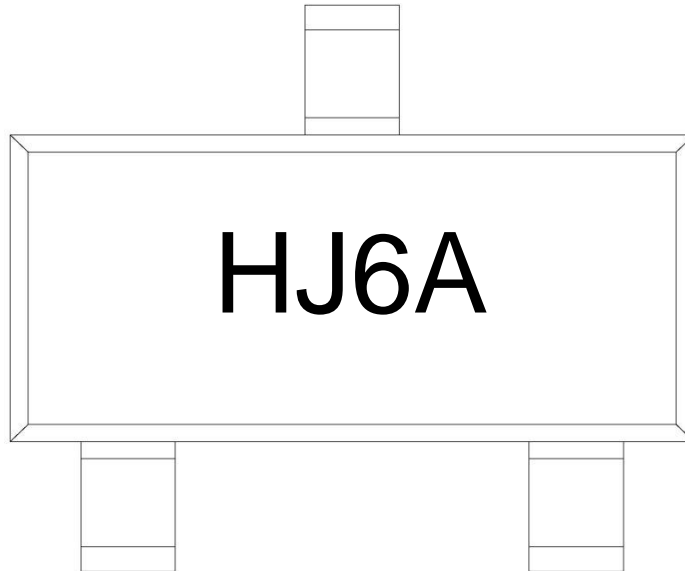
Parameter	Symbol	Rating	Unit
Collector to Base Voltage	V_{CB0}	50	V
Collector to Emitter Voltage	V_{CEO}	45	V
Emitter to Base Voltage	V_{EBO}	5.0	V
Collector Current	I_C	100	mA
Collector Power Dissipation	P_C	400	mW
Junction Temperature	T_j	150	°C
Storage Temperature Range	T_{stg}	-55~150	°C

Electrical Characteristics(Ta=25°C)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector to Base Breakdown Voltage	V_{CB0}	$I_C=0.1mA$ $I_E=0$	50			V
Collector to Emitter Breakdown Voltage	V_{CEO}	$I_C=1.0mA$ $I_B=0$	45			V
Emitter to Base Breakdown Voltage	V_{EBO}	$I_E=0.1mA$ $I_C=0$	5.0			V
Collector Cut-Off Current	I_{CBO}	$V_{CB}=50V$ $I_E=0$			0.05	μA
Emitter Cut-off Current	I_{EBO}	$V_{EB}=5.0V$ $I_C=0$			0.05	μA
DC Current Gain	h_{FE}	$V_{CE}=5.0V$ $I_C=1.0mA$	60		1000	
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C=100mA$ $I_B=5.0mA$		0.14	0.3	V
Base-Emitter Saturation Voltage	$V_{BE(sat)}$	$I_C=100mA$ $I_B=5.0mA$		0.84	1.0	V
Base-Emitter Voltage	V_{BE}	$V_{CE}=5.0V$ $I_C=2.0mA$		0.63	0.7	V
Transition Frequency	f_T	$V_{CE}=5.0V$ $I_C=10mA$	150	270		MHz
Collector Output Capacitance	C_{ob}	$V_{CB}=10V$ $I_E=0$ $f=1.0MHz$		2.2	3.5	pF
Noise Figure	NF	$V_{CE}=5.0V$ $I_C=0.2mA$ $R_g=2.0K\Omega$ $f=1.0KHz$ $\Delta f=200Hz$		0.9	10	dB

Electrical Characteristic Curve



Marking Instructions


Note:

H: Company Code

J6: Product Type Code

A: h_{FE} Classifications Symbol Code

h_{FE} Classifications Symbol	A	B	C	D
h_{FE} Range	60~150	100~300	200~600	400~1000
Marking	HJ6A	HJ6B	HJ6C	HJ6D

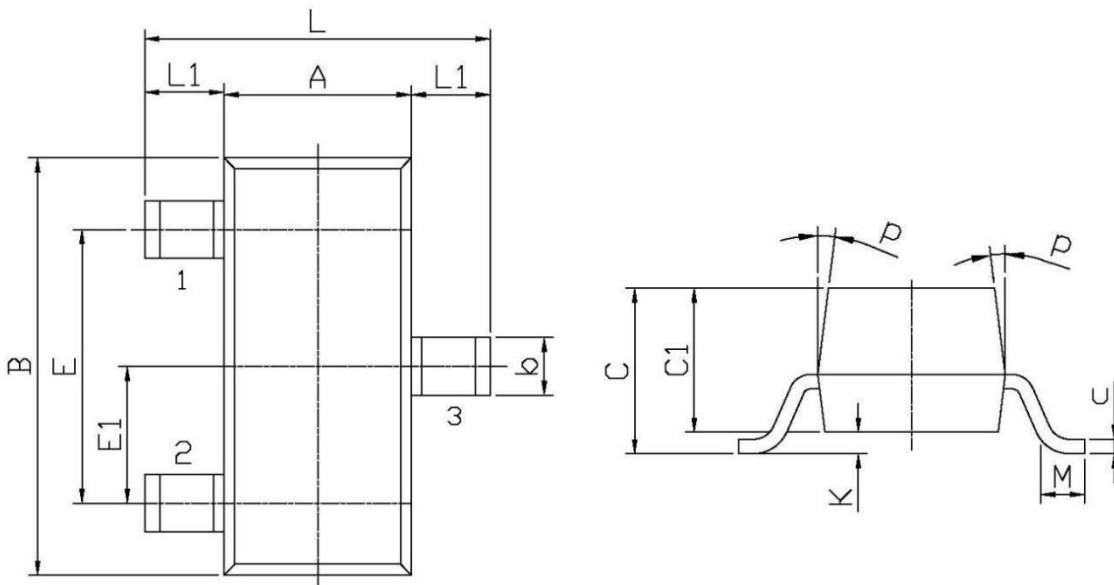
Packaging SPEC.
REEL INFORMATION

Package Type	Units					Dimension (unit: mm ³)		
	Units/Reel	Reels/Inner Box	Units/Inner Box	Inner Boxes/Outer Box	Units/Outer Box	Reel	Inner Box	Outer Box
SOT-23	3,000	10	30,000	6	180,000	7" x8	180x120x180	390x385x205

Package Outline Dimensions

SOT-23

单位: mm



Symbol	Dimensions In Millimeters		Symbol	Dimensions In Millimeters	
	Min	Max		Min	Max
L	2.2	2.7	C	1.30Max	
L1	0.45	0.65	C1	0.90	1.20
A	1.15	1.50	c	0.05	0.20
B	2.70	3.10	K	0	0.10
E	1.70	2.10	M	0.20MIN	
E1	0.85	1.05	P	7°	
b	0.35	0.55			