Description

Silicon PNP transistor in a SOT-89 Plastic Package

Applications

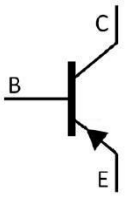
General purpose high voltage amplifier.

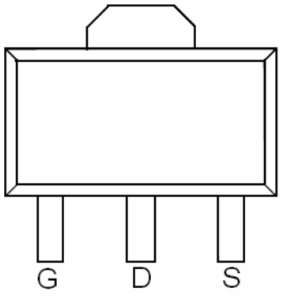
Symbol	Parameter	Max	Unit
V_{CEO}	collector-emitter voltage	-160	V
I_C	collector current (DC)	-600	mA

Features

- High voltage
- Complementary Pair with MMBT5551T
- Halogen-free product

Equivalent Circuit & Pinning





SOT-89 top view

PIN1：Base　　PIN 2： Collector　　PIN 3：Emitter

hFE Classifications & Marking

h_{FE} Classifications Symbol	A	B	C
h_{FE} Range	50～150	100～300	200～400
Marking	H2LA	H2LB	H2LC

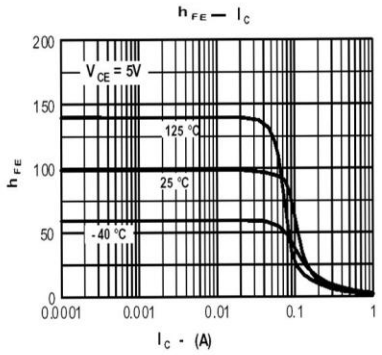
Absolute Maximum Ratings(Ta=25℃)

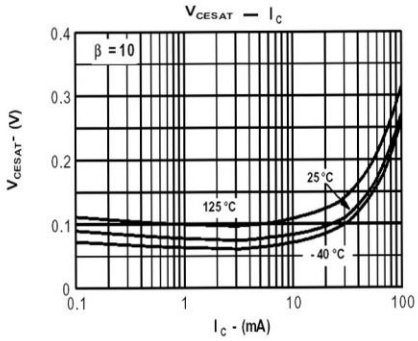
Parameter	Symbol	Rating	Unit
Collector to Base Voltage	V_{CBO}	-180	V
Collector to Emitter Voltage	V_{CEO}	-160	V
Emitter to Base Voltage	V_{EBO}	-6.0	V
Collector Current - Continuous	I_C	-600	mA
Collector Base - Continuous	I_B	-300	mA
Collector Power Dissipation	P_C	500	mW
Junction Temperature	T_j	150	℃
Storage Temperature Range	T_{stg}	-55～150	℃

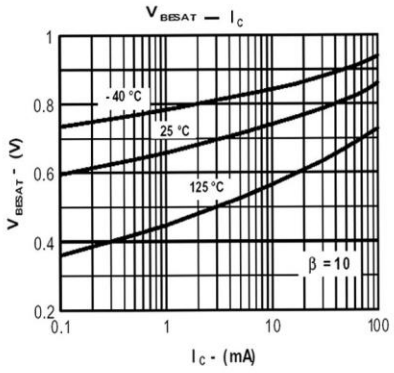
Electrical Characteristics(Ta=25℃)

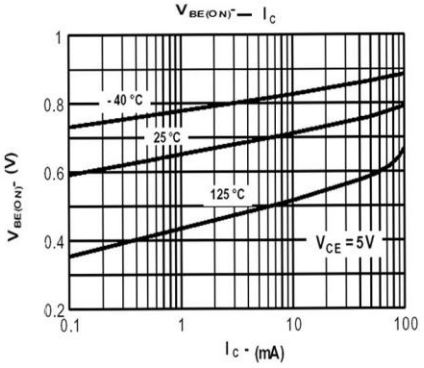
Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector Cut-Off Current	I_{CBO}	V_{CB}=-180V I_E=0			-0.1	μA
Emitter Base Cut-Off Current	I_{EBO}	V_{EB}=-6.0V I_C=0			-0.1	μA
DC Current Gain	$h_{FE(1)}$	V_{CE}=-5.0V I_C=-10mA	50	200	400	
	$h_{FE(2)}$	V_{CE}=-5.0V I_C=-50mA	20	70		
	$h_{FE(3)}$	V_{CE}=-5.0V I_C=-1.0mA	40	180		
Collector to Emitter Saturation Voltage	$V_{CE(sat)\ (1)}$	I_C=-10mA I_B=-1.0mA		-0.12	-0.4	V
	$V_{CE(sat)\ (2)}$	I_C=-50mA I_B=-5.0mA		-0.5	-0.8	V
Emitter to Base Saturation Voltage	$V_{BE(sat)\ (1)}$	I_C=-10mA I_B=-1.0mA		-0.75	-1.0	V
	$V_{BE(sat)\ (2)}$	I_C=-50mA I_B=-5.0mA		-0.8	-1.0	V
Emitter to Base Voltage	V_{BE}	V_{CE}=-5.0V I_C=-10mA		-0.7	-0.75	V
Transition Frequency	f_T	V_{CE}=-10V I_E=10mA	50	80		MHz
Collector Output Capacitance	C_{ob}	V_{CB}=-10V I_E=0 f=10MHz		2.5	5.0	pF
Turn-on Time	t_{on}	I_C=-100Ma $-I_{B1}=I_{B2}$=-10mA		0.1		μs
Turn-off Time	t_{off}			0.2		μs
Storage Time	t_{stg}			0.1		μs

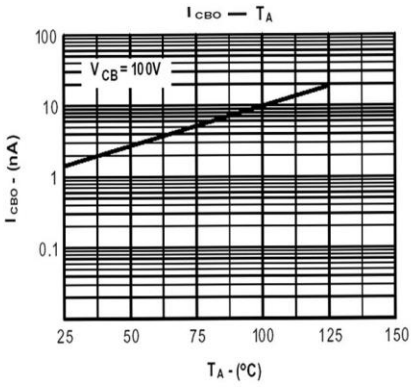
Electrical Characteristic Curve

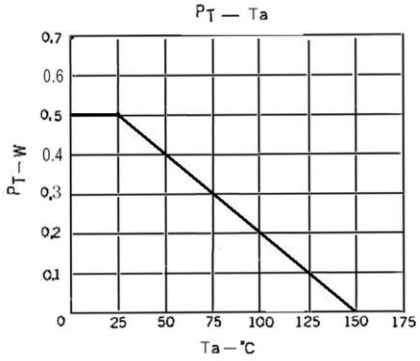




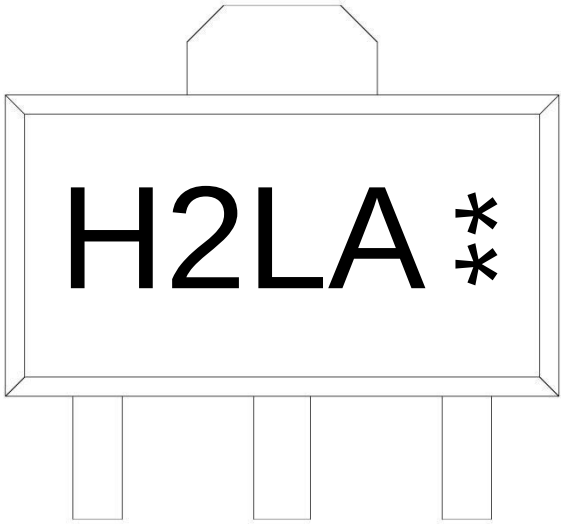








Marking Instructions



Note:

H: Company Code

2L: Product Type

A: h_{FE} Classifications Symbol

**: Lot No. Code, code change with Lot No

h_{FE} Classifications Symbol	A	B	C
h_{FE} Range	50～150	100～300	200～400
Marking	H2LA	H2LB	H2LC

Packaging SPEC.

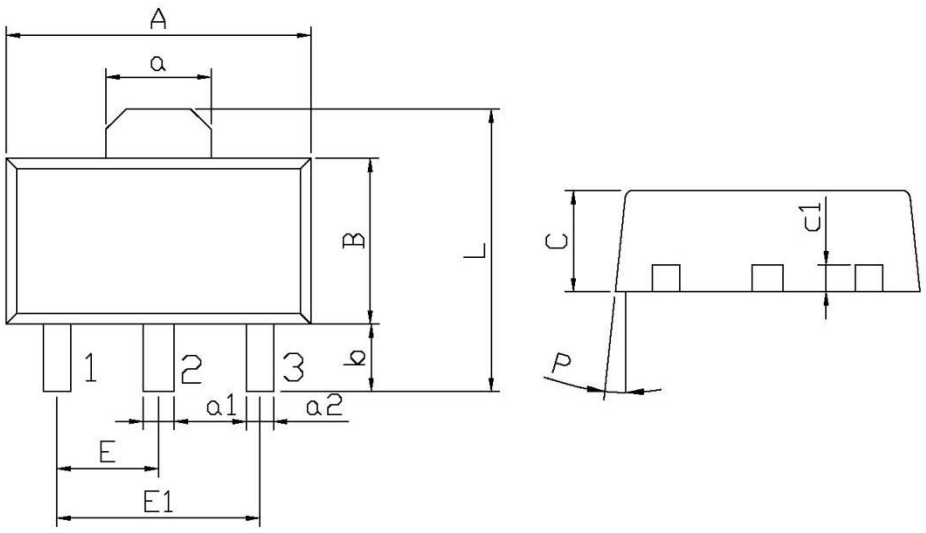
REEL INFORMATION

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-89	1,000	7	7,000	8	56,000	7″ ×12	180×120×180	385×257×392

Package Outline Dimensions

SOT-89

单位：mm



Symbol	Dimensions In Millmeters		Symbol	Dimensions In Millmeters	
	Min	Max		Min	Max
A	4.4	4.7	a1	0.36	0.56
B	2.35	2.65	a2	0.30	0.50
L	3.878	4.478	C	1.40	1.70
a	1.45	1.65	c1	0.35	0.50
E	1.40	1.60	P	6°	
E1	2.80	3.20			
b	0.80	1.20			