

Description

Silicon PNP transistor in a SOT-89 Plastic Package

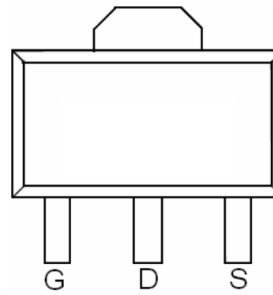
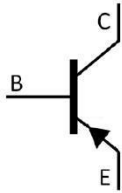
Applications

Voltage regulators ,relay drivers lamp drivers, electrical equipment.

Features

- Adoption of MBIT processes
- Low collector-to-emitter saturation voltage
- Fast switching Speed
- Large current capacity and wide ASO
- Complementary to KTD1624
- Halogen-free product

Symbol	Parameter	Max	Unit
V_{CEO}	collector-emitter voltage	-50	V
I_c	collector current (DC)	-3.0	A

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	100~200	140~280	200~400
Marking	HXA	HXB	HXC

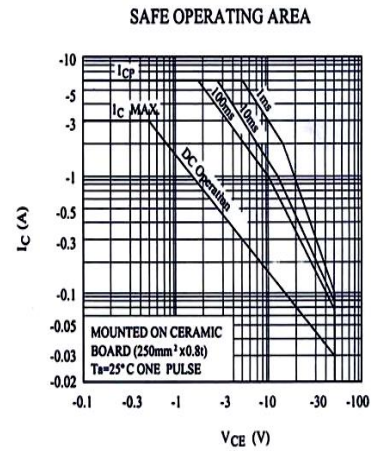
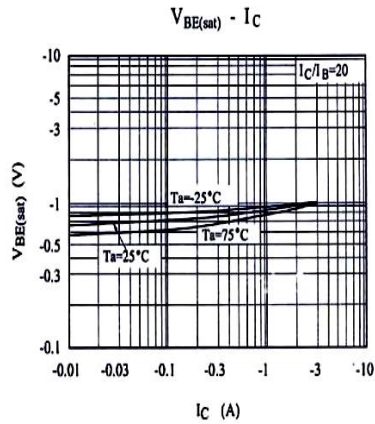
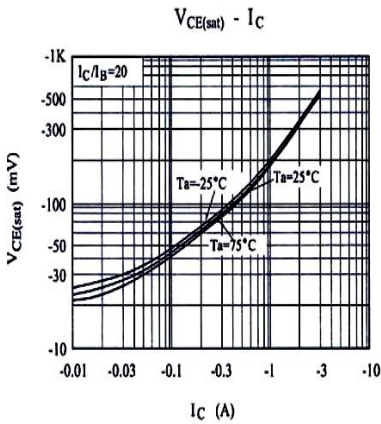
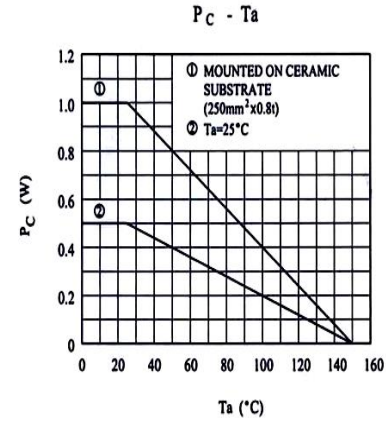
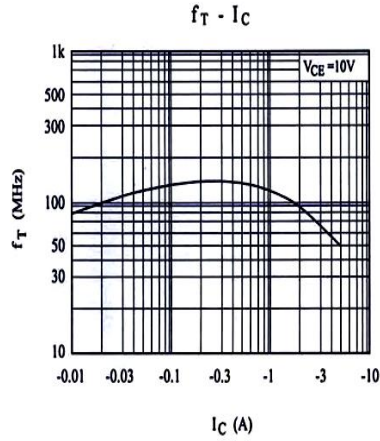
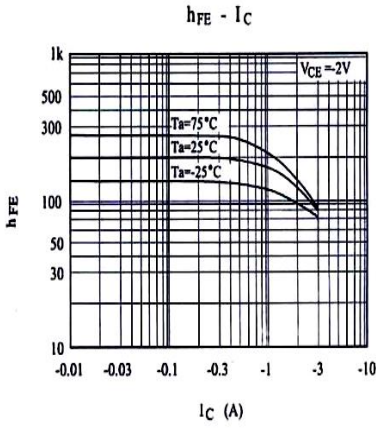
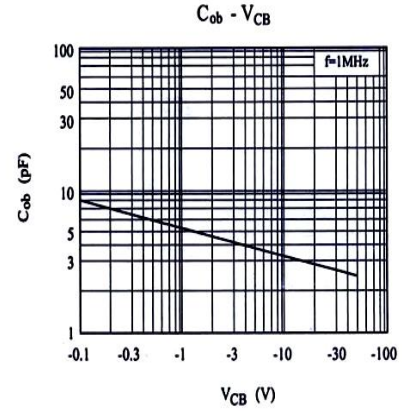
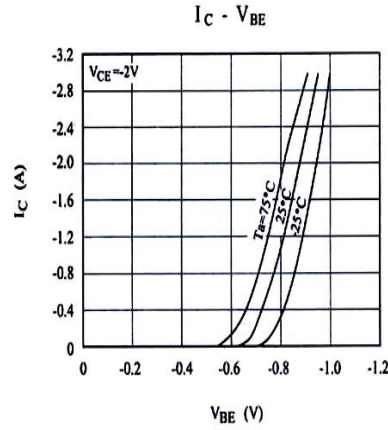
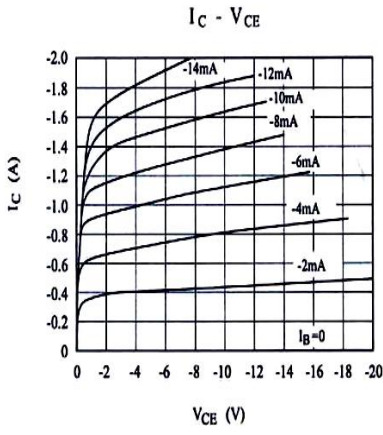
Absolute Maximum Ratings(Ta=25°C)

Parameter	Symbol	Rating	Unit
Collector to Base Voltage	V_{CBO}	-60	V
Collector to Emitter Voltage	V_{CEO}	-50	V
Emitter to Base Voltage	V_{EBO}	-6.0	V
Collector Current - Continuous	I_C	-3.0	A
Collector Current – Continuous(Pluse)	I_{CP}	-6.0	A
Collector Power Dissipation	P_C	500	mW
Collector Power Dissipation*	* $P_C(T_C=25^\circ C)$	1.0	W
Junction Temperature	T_j	150	°C
Storage Temperature Range	T_{stg}	-55~150	°C

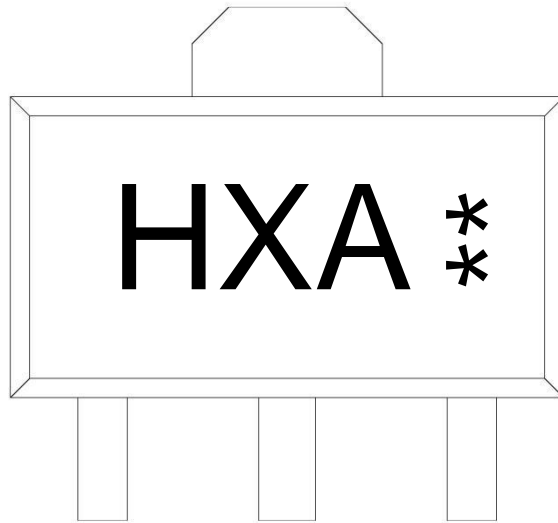
Electrical Characteristics(Ta=25°C)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector to Base Breakdown Voltage	V_{CBO}	$I_C=-10\mu A$ $I_E=0$	-60			V
Collector to Emitter Breakdown Voltage	V_{CEO}	$I_C=-1.0mA$ $I_B=0$	-50			V
Emitter to Base Breakdown Voltage	V_{EBO}	$I_E=-10\mu A$ $I_C=0$	-6.0			V
Collector Cut-Off Current	I_{CBO}	$V_{CB}=-40V$ $I_E=0$			-1.0	μA
Emitter Base Cut-Off Current	I_{EBO}	$V_{EB}=-4.0V$ $I_C=0$			-1.0	μA
DC Current Gain	$h_{FE(1)}$	$V_{CE}=-2.0V$ $I_C=-100mA$	100		400	
	$h_{FE(2)}$	$V_{CE}=-2.0V$ $I_C=-3.0A$	35			
Collector to Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C=-2.0A$ $I_B=-100mA$		-0.35	-0.7	V
Base to Emitter Saturation Voltage	$V_{BE(sat)}$	$I_C=-2.0A$ $I_B=-100mA$		-0.94	-1.2	V
Transition Frequency	f_T	$V_{CE}=-10V$ $I_C=-50mA$		150		MHz
Collector Output Capacitance	C_{ob}	$V_{CB}=-10V$ $f=1MHz$		39		pF
Turn-On Time	t_{on}	$-10I_{B1}=10I_{B2}=I_C=1.0A$		70		nS
Storage Time	t_{stg}			450		nS
Fall Time	t_f			35		nS

Electrical Characteristic Curve



Marking Instructions



Note:

- H: Company Code
- X: 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	100~200	140~280	200~400
Marking	HXA	HXB	HXC

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	6	42,000	7" ×12	180×120×180	390×385×205

Package Outline Dimensions

SOT-89

单位: mm

