

Descriptions

Silicon PNP transistor in a SOT-89 Plastic Package

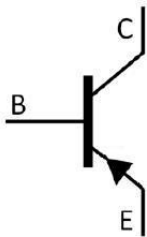
Features

- Low saturation voltage
- Excellent h_{FE} linearity and high h_{FE}
- Halogen-free product

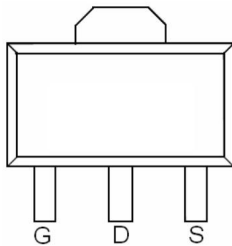
Applications

- Output stage of 3 watts audio amplifier,
- regulator,
- DC-DC converter and relay driver.

Equivalent Circuit



Pinning



SOT-89 top view

PIN1: Base PIN 2: Collector PIN 3: Emitter

Pinning

h_{FE} Classifications Symbol	R	Q	P	E
h_{FE} Range	60~120	100~200	160~320	200~400
Marking	H72R	H72Q	H72P	H72E

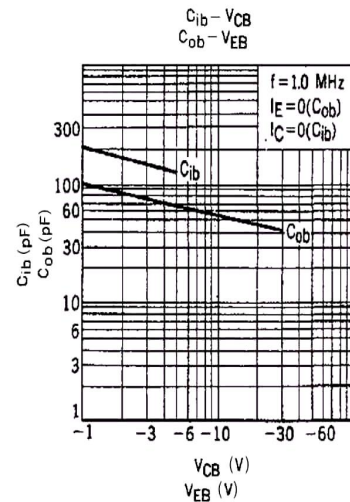
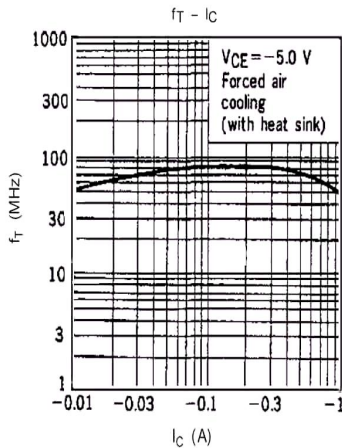
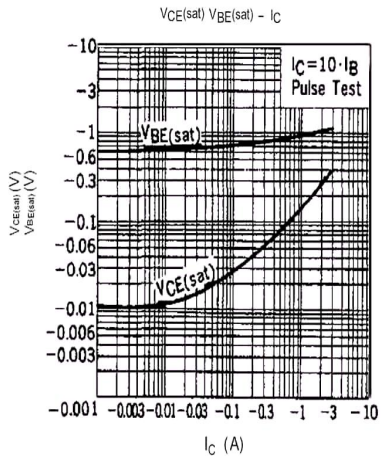
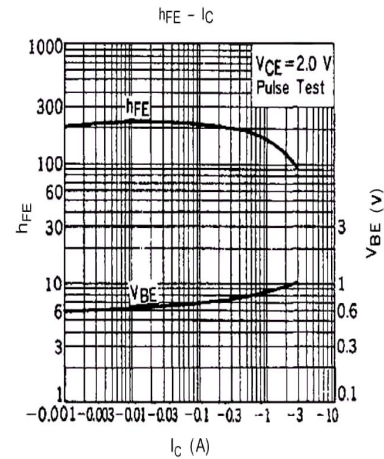
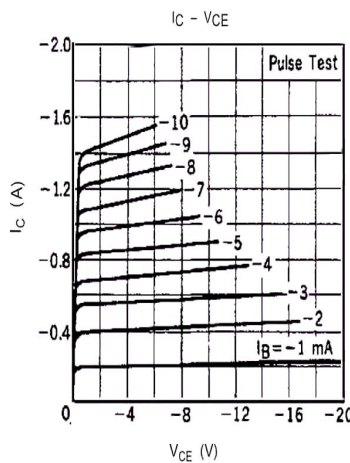
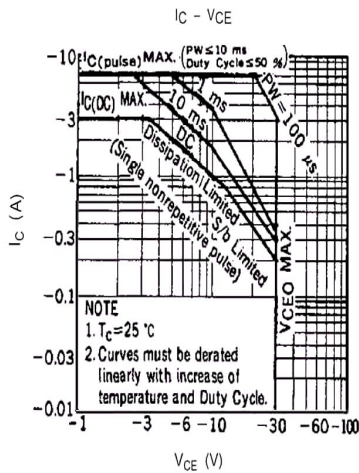
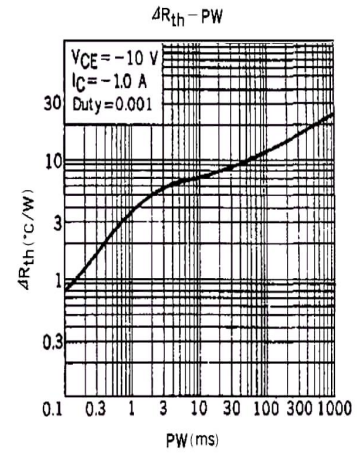
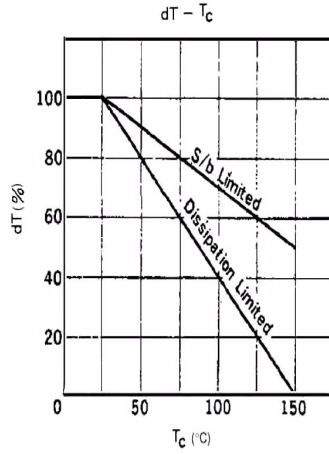
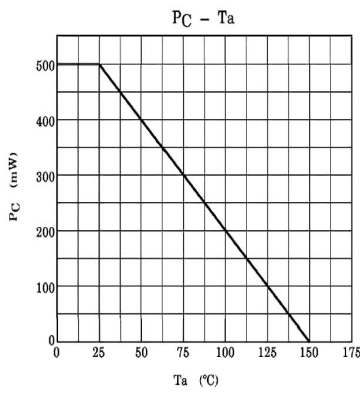
Absolute Maximum Ratings(Ta=25°C)

Parameter	Symbol	Rating	Unit
Collector to Base Voltage	V_{CBO}	-40	V
Collector to Emitter Voltage	V_{CEO}	-30	V
Emitter to Base Voltage	V_{EBO}	-5.0	V
Collector Current-Continuous	I_C	-3.0	A
Collector Power Dissipation	P_C	500	mW
Junction Temperature	T_j	150	°C
Storage Temperature Range	T_{stg}	-55~150	°C

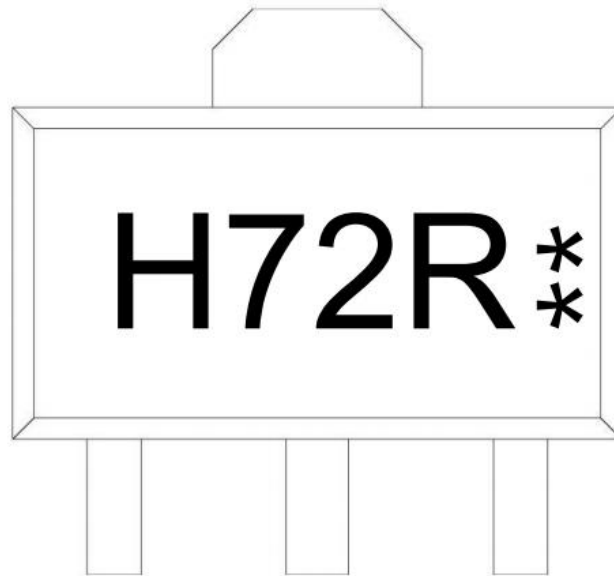
Electrical Characteristics(Ta=25°C)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector to Base Breakdown Voltage	V_{CBO}	$I_C=-100\mu A$ $I_E=0$	-40			V
Collector to Emitter Breakdown Voltage	V_{CEO}	$I_C=-1mA$ $I_B=0$	-30			V
Collector Cut-Off Current	I_{CBO}	$V_{CB}=-30V$ $I_E=0$			-1.0	μA
Emitter Base Cut-Off Current	I_{EBO}	$V_{EB}=-3.0V$ $I_C=0$			-1.0	μA
DC Current Gain	$h_{FE(1)}$	$V_{CE}=-2.0V$ $I_C=-1.0A$	60	160	400	
	$h_{FE(2)}$	$V_{CE}=-2.0V$ $I_C=-20mA$	30	220		
Collector to Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C=-2.0A$ $I_B=-0.2A$		-0.3	-0.5	V
Base to Emitter Saturation Voltage	$V_{BE(sat)}$	$I_C=-2.0A$ $I_B=-0.2A$		-1.0	-2.0	V
Transition Frequency	f_T	$V_{CE}=-5.0V$ $I_C=-0.1A$		80		MHz
Collector Output Capacitance	C_{ob}	$V_{CB}=-10V$ $f=1.0MHz$ $I_E=0$		55		pF

Electrical Characteristic Curve



Marking Instructions



Note:

- H: Company Code
- 72: Product Type
- R: h_{FE} Classifications Symbol
- ** : Lot No. Code, code change with Lot No

h _{FE} Classifications Symbol	R	Q	P	E
h _{FE} Range	60~120	100~200	160~320	200~400
Marking	H72R	H72Q	H72P	H72E

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

