

## Descriptions

Silicon PNP transistor in a SOT-89 Plastic Package

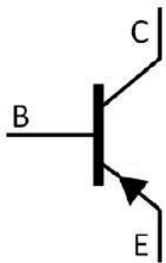
## Features

- High voltage
- Large continuous collector current capability
- Complementary pair with 2SC2383T
- Halogen-free product

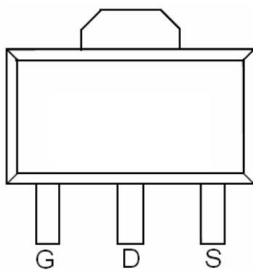
## Applications

Color TV vert.and class B sound output applications.

## Equivalent Circuit



## Pinning



SOT-89 top view

PIN1: Base      PIN 2: Collector      PIN 3: Emitter

## hFE Classifications & Marking

h <sub>FE</sub> Classifications Symbol	R	O	Y
h <sub>FE</sub> Range	60~120	100~200	160~320
Marking	H13R	H13O	H13Y

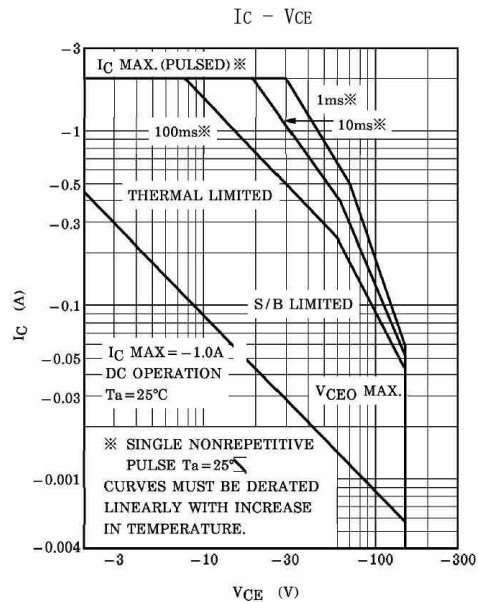
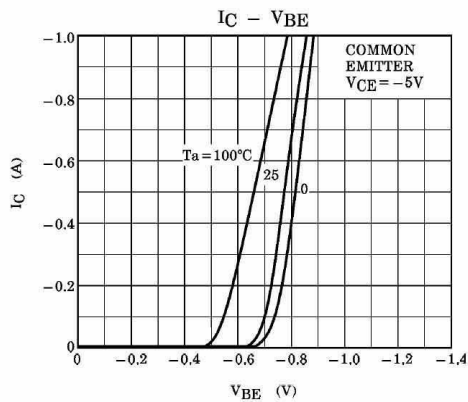
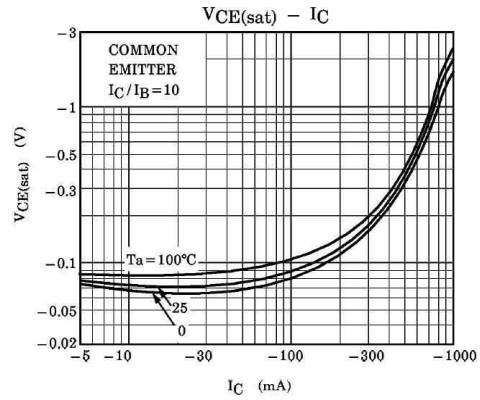
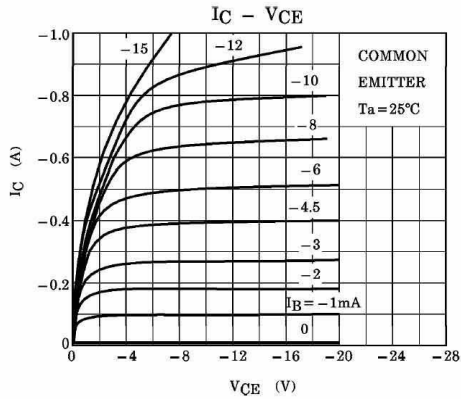
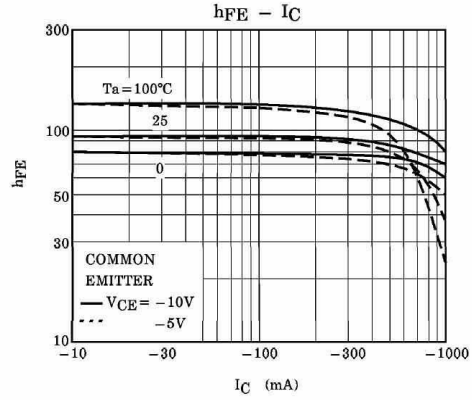
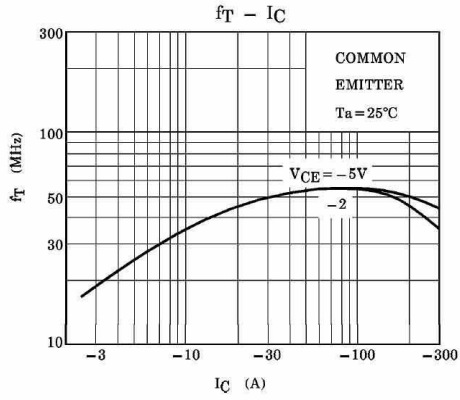
## Absolute Maximum Ratings(Ta=25°C)

Parameter	Symbol	Rating	Unit
Collector to Base Voltage	$V_{CBO}$	-160	V
Collector to Emitter Voltage	$V_{CEO}$	-160	V
Emitter to Base Voltage	$V_{EBO}$	-6.0	V
Collector Current-Continuous	$I_C$	-1.0	A
Collector Base-Continuous	$I_B$	-0.5	A
Collector Power Dissipation	$P_C$	500	mW
Junction Temperature	$T_j$	150	°C
Storage Temperature Range	$T_{stg}$	-55~150	°C

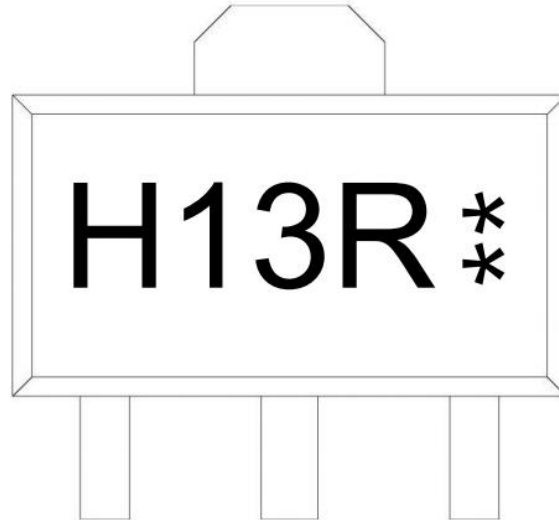
## Electrical Characteristics(Ta=25°C)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector to Base Breakdown Voltage	$V_{CBO}$	$I_C=-100\mu A$ $I_E=0$	-160			V
Collector to Emitter Voltage	$V_{CEO}$	$I_C=-500\mu A$ $I_B=0$	-160			V
Emitter to Base Voltage	$V_{EBO}$	$I_E=-100\mu A$ $I_C=0$	-6.0			V
Collector Cut-Off Current	$I_{CBO}$	$V_{CB}=-150V$ $I_E=0$			-1.0	$\mu A$
Collector Cut-Off Current	$I_{CEO}$	$V_{CE}=-150V$ $I_B=0$			-10	$\mu A$
Emitter Base Cut-Off Current	$I_{EBO}$	$V_{EB}=-6.0V$ $I_C=0$			-1.0	$\mu A$
DC Current Gain	$h_{FE}$	$V_{CE}=-5.0V$ $I_C=-200mA$	60		320	
Collector to Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C=-500mA$ $I_B=-50mA$			-1.5	V
Base to Emitter Voltage	$V_{BE}$	$V_{CE}=-5.0V$ $I_C=-5.0mA$			-0.75	V
Transition Frequency	$f_T$	$V_{CE}=-5.0V$ $I_C=-200mA$	15	50		MHz
Collector Output Capacitance	$C_{ob}$	$V_{CB}=-10V$ $f=1.0MHz$ $I_E=0$			35	pF

Electrical Characteristic Curve



Marking Instructions



Note:

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

$h_{FE}$ Classifications Symbol	R	O	Y
$h_{FE}$ Range	60~120	100~200	160~320
Marking	H13R	H13O	H13Y

Packaging SPEC

REEL INFORMATION

Package Type 封装形式	Units 包装数量					Dimension 包装尺寸 (unit: mm <sup>3</sup> )		
	Units/Reel 只/卷盘	Reels/Inner Box 卷盘/盒	Units/Inner Box 只/盒	Inner Boxes/Outer Box 盒/箱	Units/Outer Box 只/箱	Reel	Inner Box 盒	Outer Box 箱
SOT-89	1,000	7	7,000	8	56,000	7" x12	180x120x180	385x257x392

**Package Outline Dimensions**

SOT-89

单位: mm

