

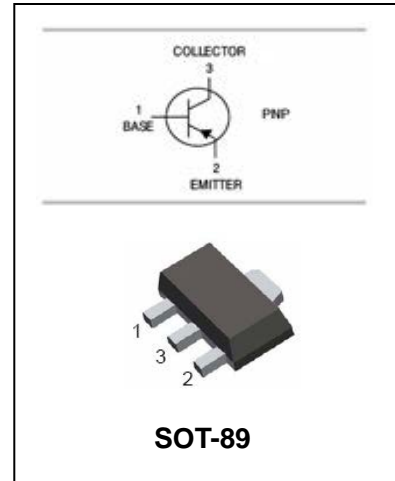
# Silicon Planar Epitaxial Transistor

2SA1661

## FEATURES

- High voltage
- High transition frequency
- Small flat package

**HF**



## APPLICATION

- High current application

## ORDERING INFORMATION

Type No.	Marking	Package Code
2SA1661	DO/DY	SOT-89

## MAXIMUM RATING @ Ta=25°C unless otherwise specified

Symbol	Parameter	Value	Units
$V_{CBO}$	Collector-Base Voltage	-120	V
$V_{CEO}$	Collector-Emitter Voltage	-120	V
$V_{EBO}$	Emitter-Base Voltage	-5	V
$I_C$	Collector Current	-800	mA
$I_B$	Base Current	-160	mA
$P_D$	Power Dissipation	500	mW
$T_J, T_{STG}$	Junction and Storage Temperature	-55 to +150	°C

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ELECTRICAL CHARACTERISTICS @ Ta=25°C unless otherwise specified

Parameter	Symbol	Test conditions	MIN	TYP	MAX	UNIT
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C=-1mA, I_E=0$	-120			V
Collector- emitter breakdown voltage	$V_{(BR)CEO}$	$I_C=-10mA, I_B=0$	-120			V
Emitter- base breakdown voltage	$V_{(BR)EBO}$	$I_E=-1mA, I_C=0$	-5			V
Collector cut-off current	$I_{CBO}$	$V_{CB}=-120V, I_E=0$			-0.1	$\mu A$
Emitter cut-off current	$I_{EBO}$	$V_{EB}=-5V, I_C=0$			-0.1	$\mu A$
DC current gain	$h_{FE}$	$V_{CE}=-5V, I_C=-100mA$	80		240	
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C=-500mA, I_B=-50mA$			-1.0	V
Base-emitter	$V_{BE}$	$V_{CE}=-5V, I_C=-500mA$			-1.0	V
Transition frequency	$f_T$	$V_{CE}=-5V, I_C=-100mA$		120		MHz
Collector output capacitance	$C_{ob}$	$V_{CB}=-10V, I_E=0, f=1MHz$			30	pF

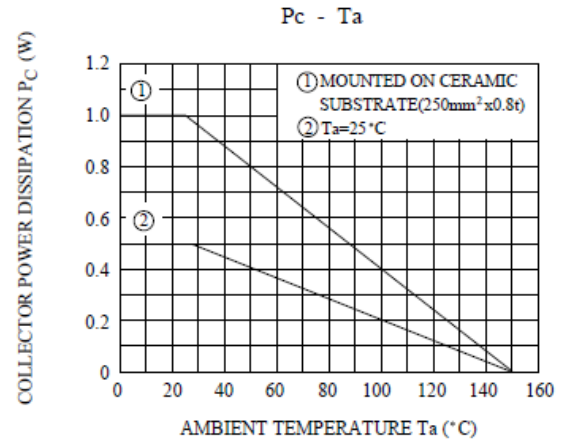
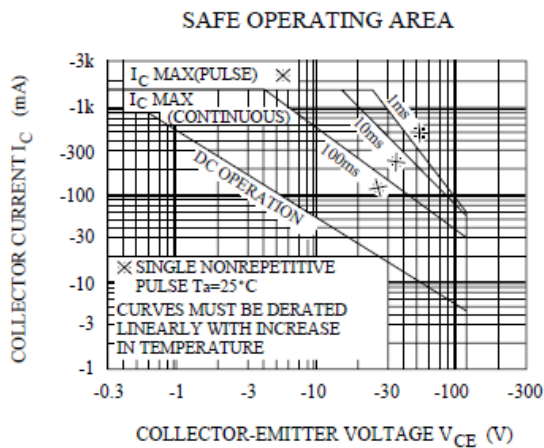
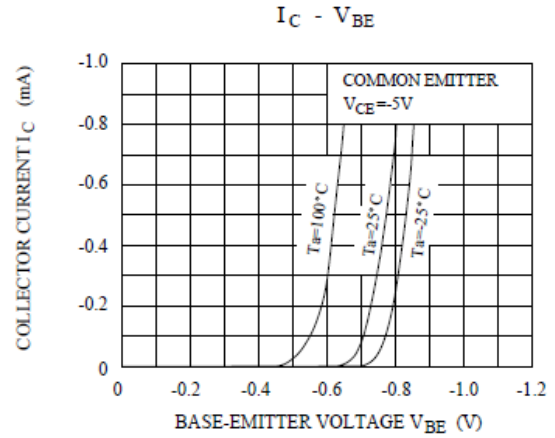
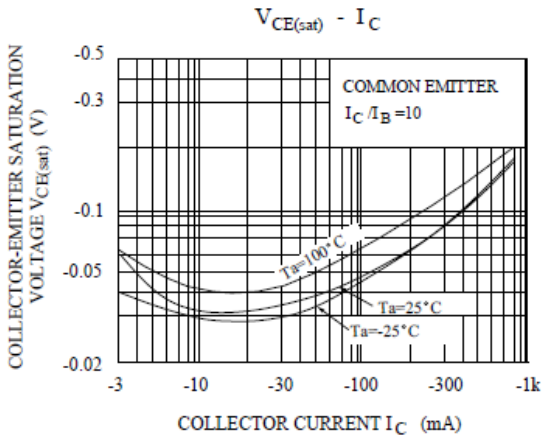
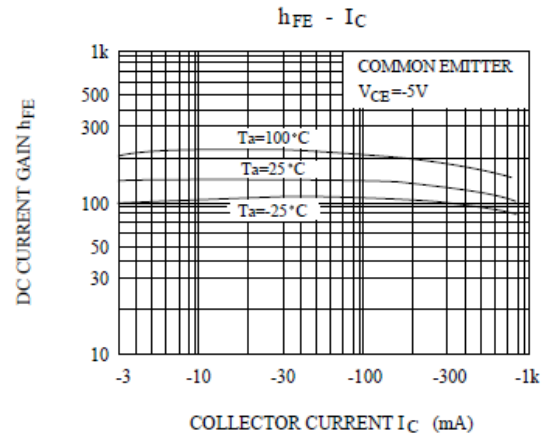
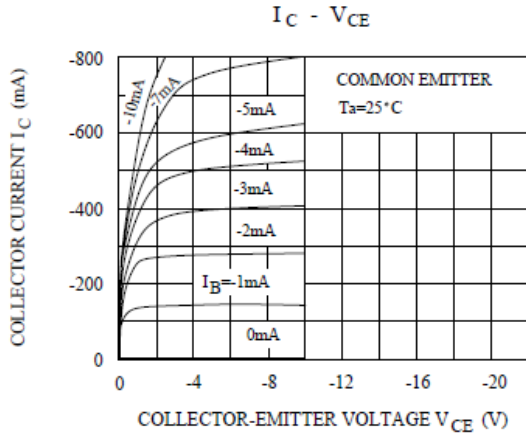
CLASSIFICATION OF  $h_{FE}$

Rank	O	Y
Range	80-160	120-240
Marking	DO	DY

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TYPICAL CHARACTERISTICS @  $T_a=25^\circ\text{C}$  unless otherwise specified



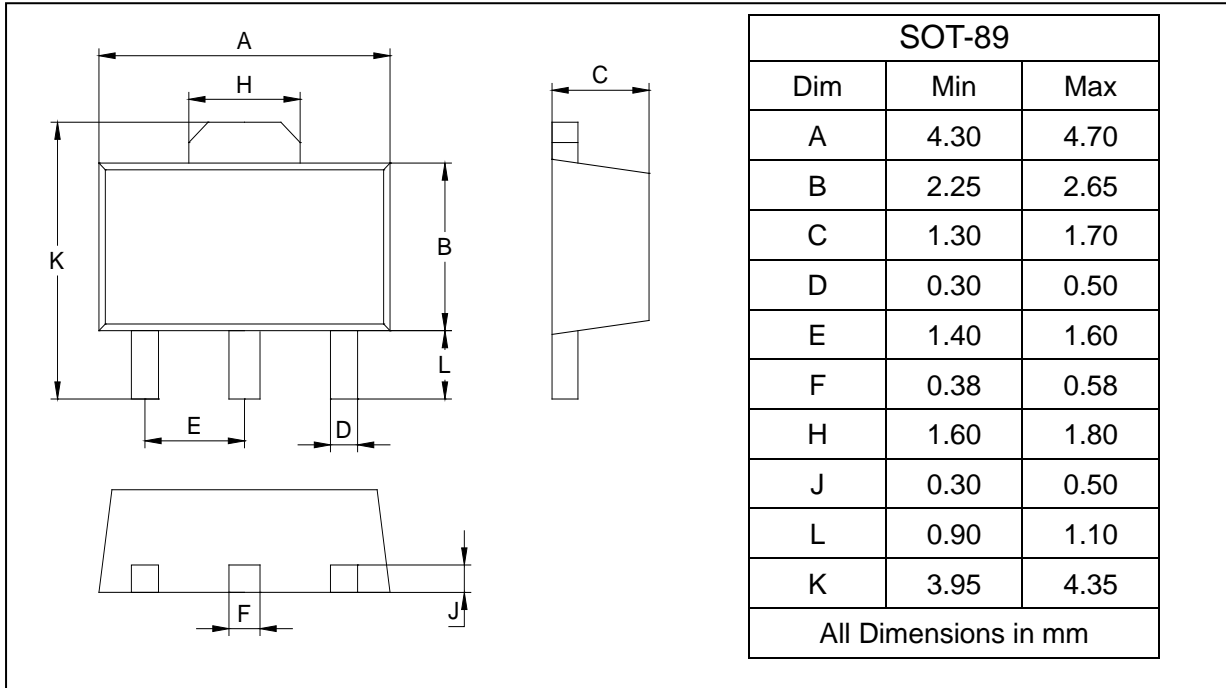
**Silicon Planar Epitaxial Transistor**

**2SA1661**

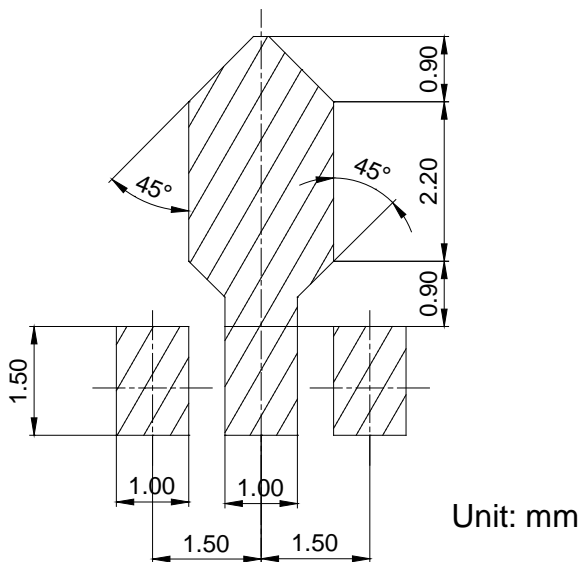
**PACKAGE OUTLINE**

Plastic surface mounted package

SOT-89



**SOLDERING FOOTPRINT**



**PACKAGE INFORMATION**

Device	Package	Shipping
2SA1661	SOT-89	1000 pcs / Tape & Reel