

Silicon Planar Epitaxial Transistor

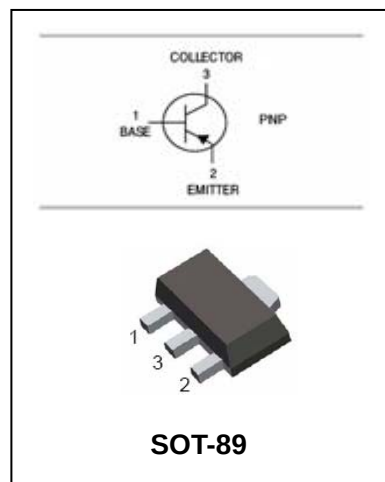
2SA1661

FEATURES

- High Voltage.
- High Transistion Frequency.
- Small Flat Package.



Lead-free



APPLICATION

- High Current Application.

ORDERING INFORMATION

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

MAXIMUM RATING @ Ta=25℃ 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_C	Collector Power Dissipation	500	mW
T_j, T_{stg}	Junction and Storage Temperature	-55 to +150	℃

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ELECTRICAL CHARACTERISTICS @ Ta=25℃ 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	μA
Emitter cut-off current	I_{EBO}	$V_{EB}=-5V, I_C=0$			-0.1	μA
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

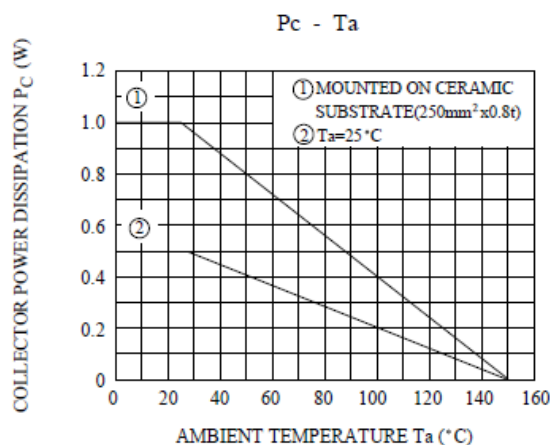
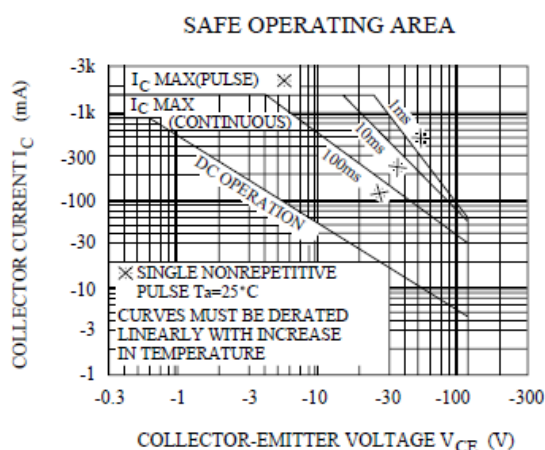
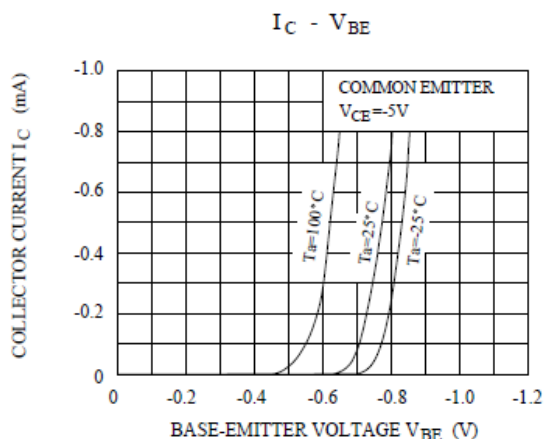
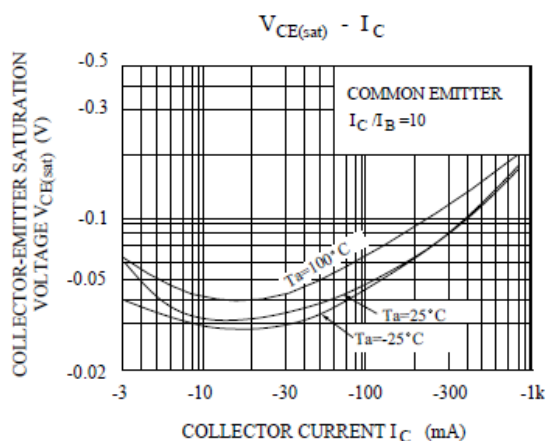
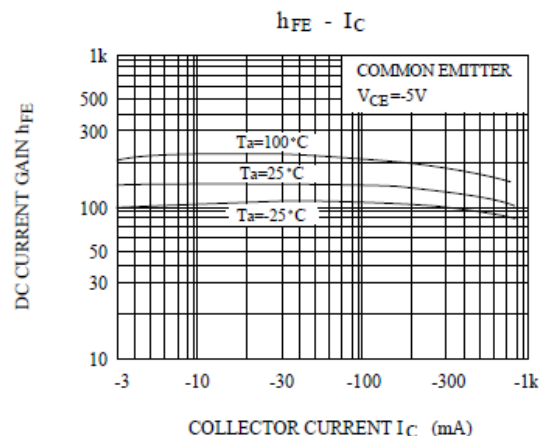
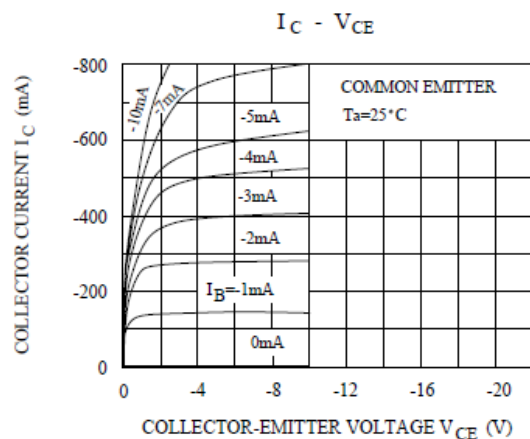
CLASSIFICATION OF h_{FE}

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



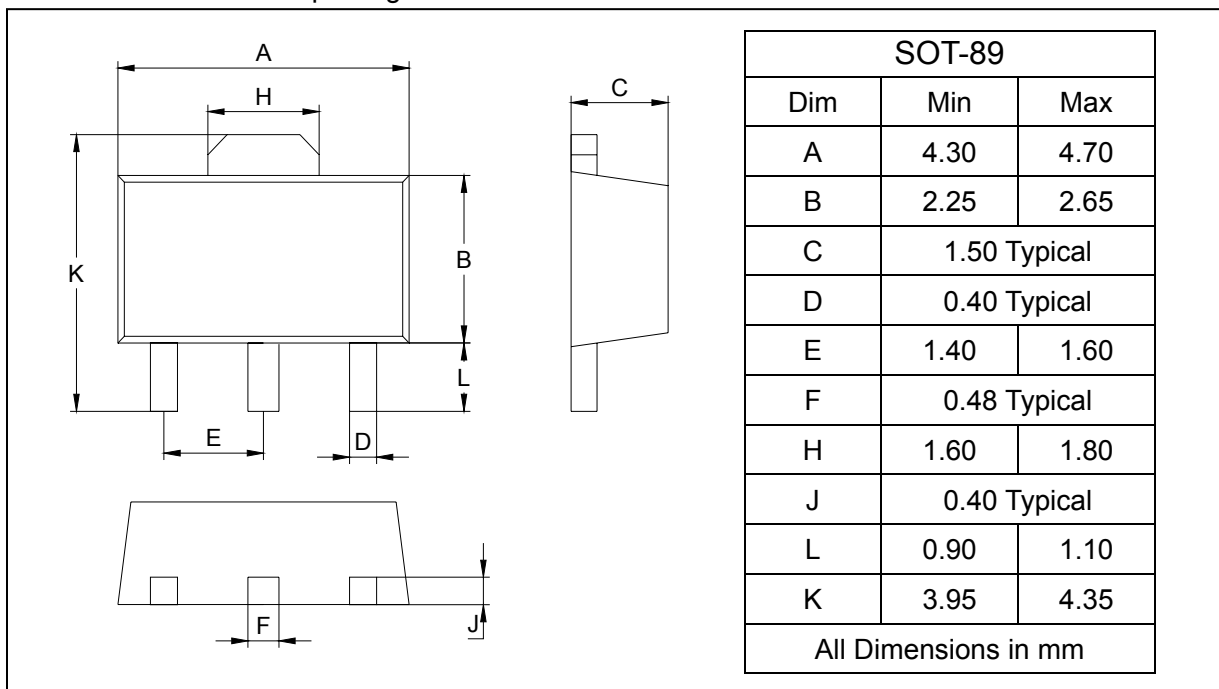
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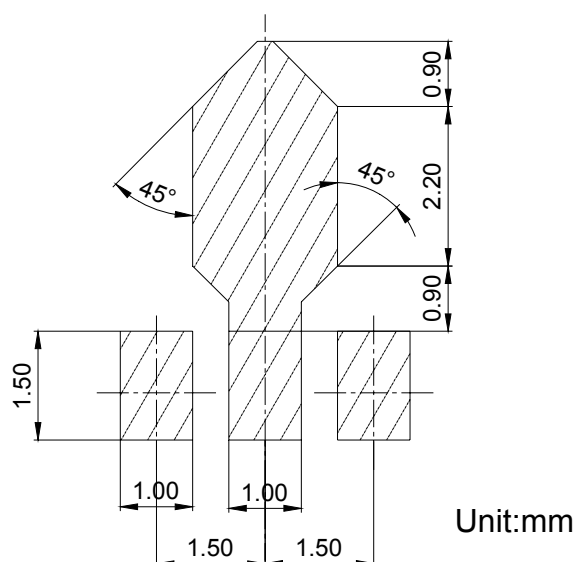
PACKAGE OUTLINE

Plastic surface mounted package

SOT-89



SOLDERING FOOTPRINT



PACKAGE INFORMATION

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