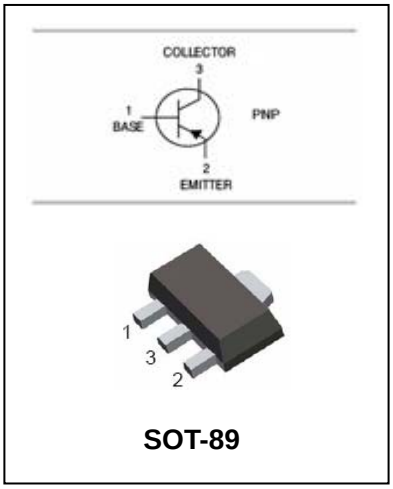
Silicon Planar Epitaxial Transistor 2SA1661

FEATURES

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

Lead-free



SOT-89

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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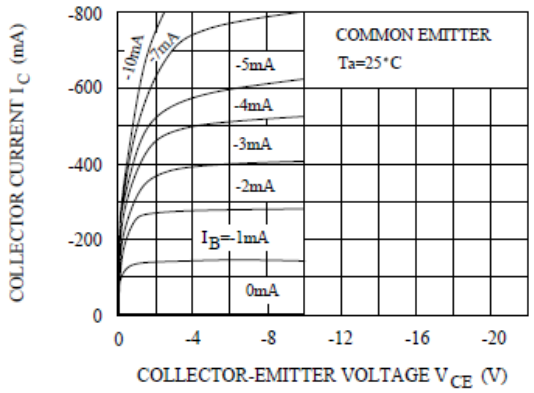
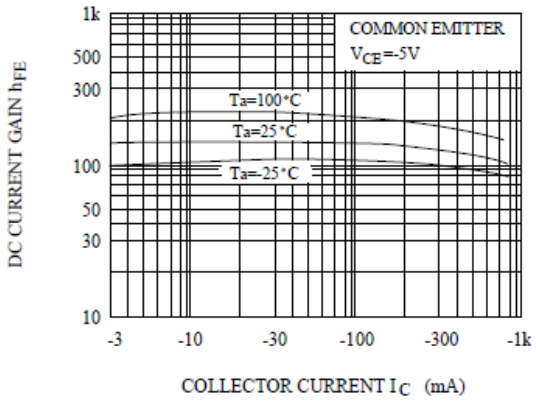
TYPICAL CHARACTERISTICS @ Ta=25℃ unless otherwise specified

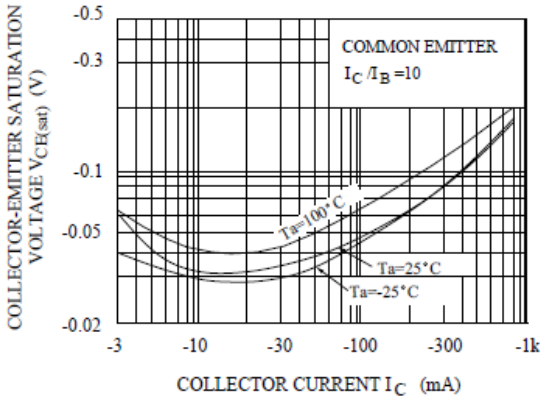
I_C - V_{CE}



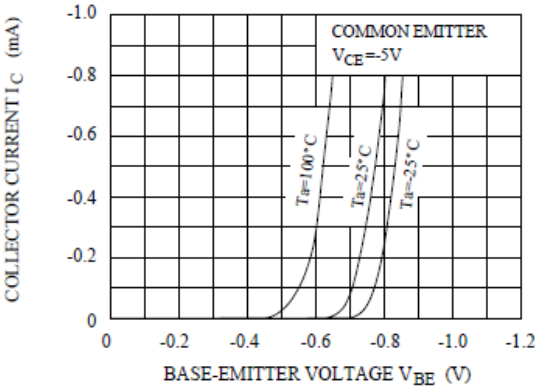
h_{FE} - I_C



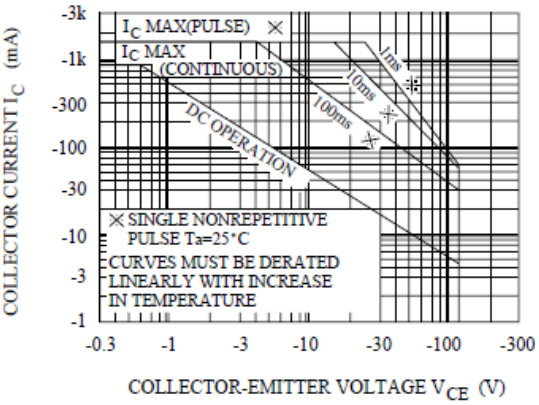
$V_{CE(sat)}$ - I_C



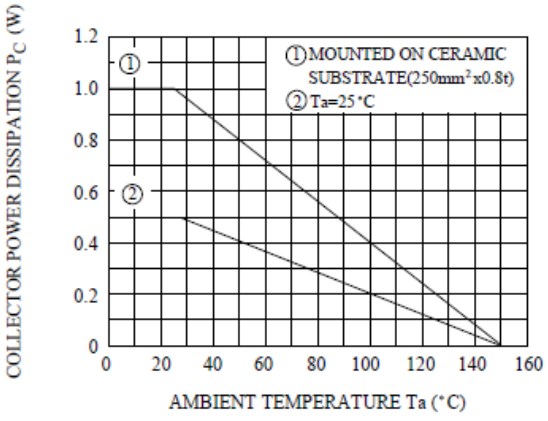
I_C - V_{BE}



SAFE OPERATING AREA



Pc - Ta



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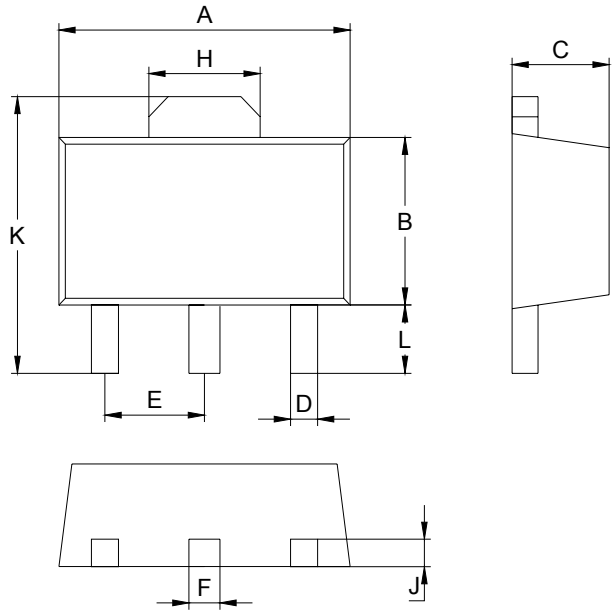
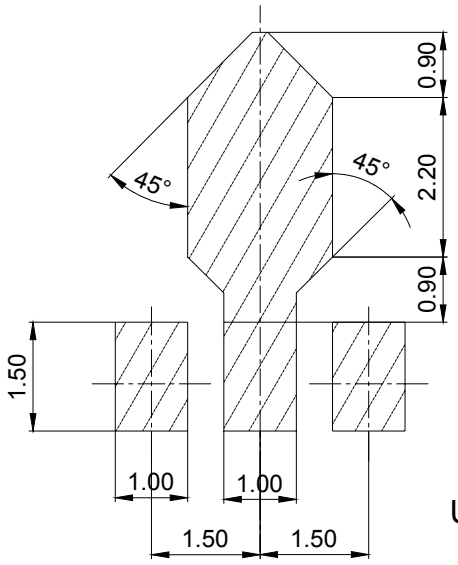
PACKAGE OUTLINE

Plastic surface mounted package SOT-89



SOT-89		
Dim	Min	Max
A	4.30	4.70
B	2.25	2.65
C	1.50 Typical	
D	0.40 Typical	
E	1.40	1.60
F	0.48 Typical	
H	1.60	1.80
J	0.40 Typical	
L	0.90	1.10
K	3.95	4.35
All Dimensions in mm		

SOLDERING FOOTPRINT



Unit:mm

PACKAGE INFORMATION

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