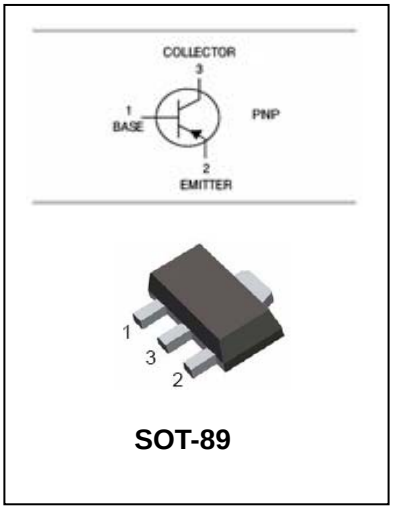
Plastic-Encapsulate Transistors **2SA1201**

FEATURES

Lead-free

- High voltage
- High transition frequency
- Small flatpackage
- P_C=1 to 2 W(mounted on a ceamic substrate)
- Complementary to 2SC2881



SOT-89

ORDERING INFORMATION

Type No.	Marking	Package Code
2SA1201	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 Dissipation	500	mW
T_j,T_{stg}	Junction and Storage Temperature	-55~150	℃

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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	V
Base-emitter	V_{BE}	V_{CE}=-5V,I_C=-500mA			-1	
Transition frequency	f_T	V_{CE}=-5V, I_E=-100mA		120		MHz
Collector output capacitance	C_{ob}	V_{CB}=-10V,I_E=0,f=1MHz		30		pF

CLASSIFICATION OF h_{FE}

Rank	P	Q
Range	80-160	120-240
Marking	DO•	DY•

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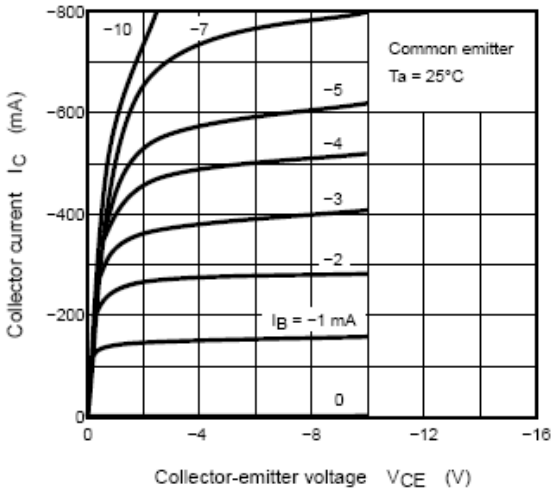
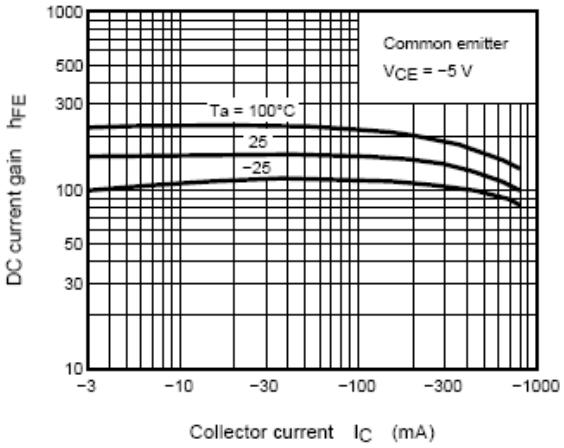
TYPICAL CHARACTERISTICS @ Ta=25℃ unless otherwise specified

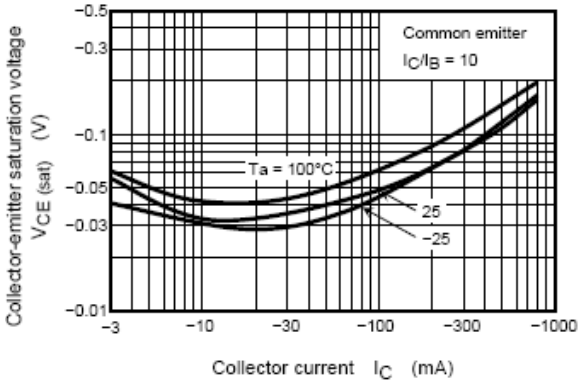
$I_C - V_{CE}$



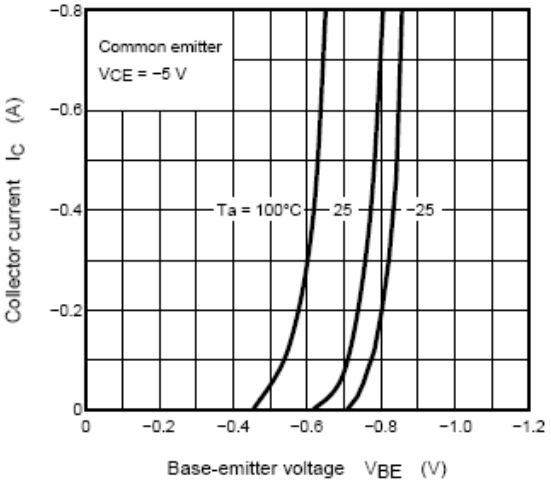
$h_{FE} - I_C$



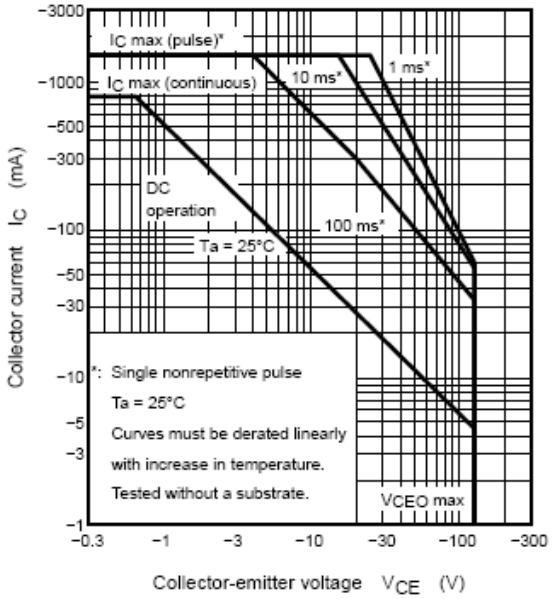
$V_{CE\ (sat)} - I_C$



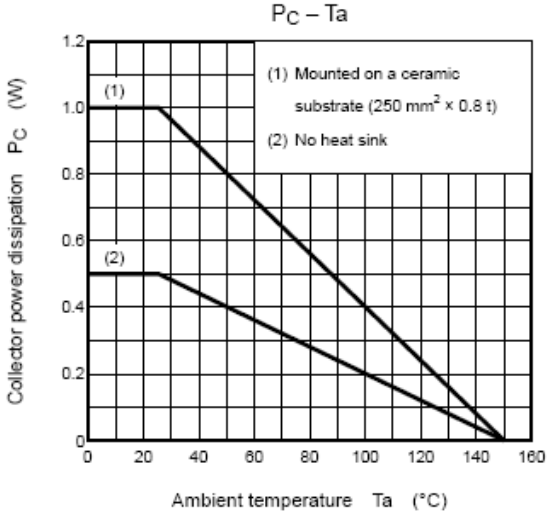
$I_C - V_{BE}$



Safe Operating Area



$P_C - Ta$



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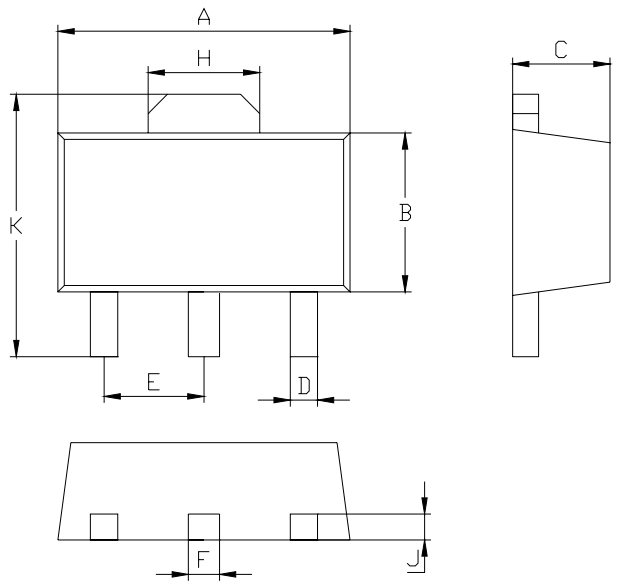
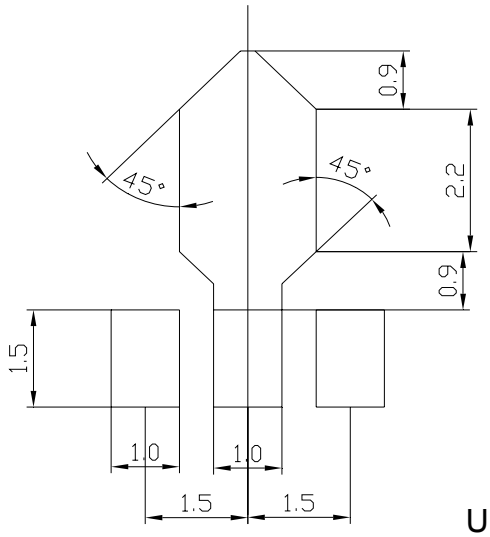
PACKAGE OUTLINE

Plastic surface mounted package SOT-89



SOT-89		
Dim	Min	Max
A	4.5	4.7
B	2.3	2.7
C	1.5Typical	
D	0.35	0.55
E	1.4	1.6
F	0.4	0.6
H	1.55	1.75
J	0.4Typical	
K	4.15	4.25
All Dimensions in mm		

SOLDERING FOOTPRINT



Unit:mm

PACKAGE INFORMATION

Device	Package	Shipping
2SA1201	SOT-89	1000/Tape&Reel