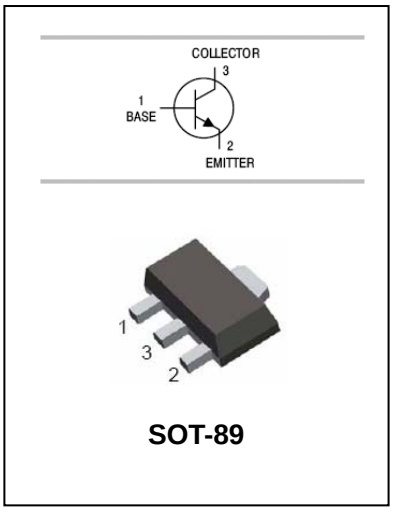
NPN Silicon Epitaxial Planar Transistor **2SC2881**

FEATURES

Lead-free

- High voltage:V_{CEO}=120V
- High transition frequency;f_T=120MHz.
- P_C=500mW.
- Complements the 2SA1201.



SOT-89

APPLICATIONS

- Power and voltage amplifier application.

ORDERING INFORMATION

Type No.	Marking	Package Code
2SC2881	CO1/CY1	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 -Continuous	0.8	A
I_B	Base current	0.16	A
P_C	Collector Dissipation	500	mW
T_j,T_{stg}	Junction and Storage Temperature	-55 to +150	℃

NPN Silicon Epitaxial Planar Transistor **2SC2881**

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 voltage	V_{BE}	V_{CE}=5V, I_B=500mA			1	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

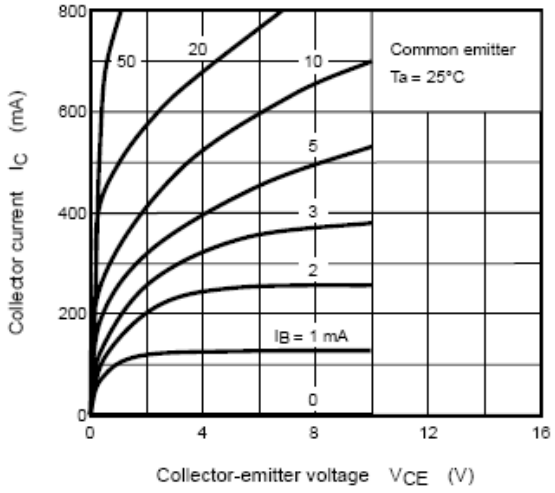
CLASSIFICATION OF h_{FE}

Rank	O	Y
Range	80-160	120-240
MARKING	CO1	CY1

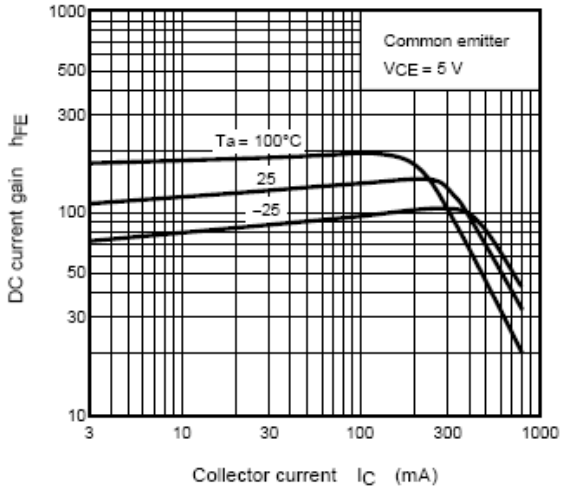
NPN Silicon Epitaxial Planar Transistor **2SC2881**

TYPICAL CHARACTERISTICS @ Ta=25℃ unless otherwise specified

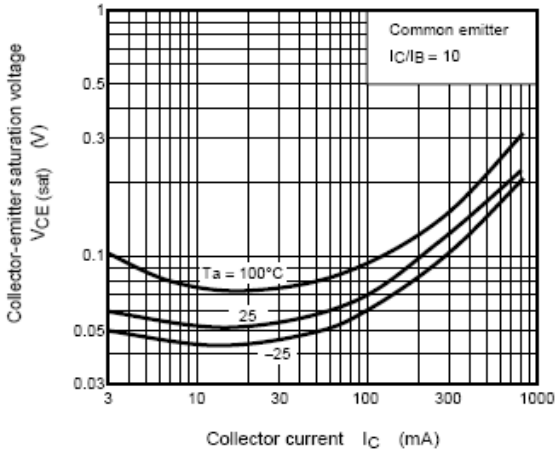
$I_C - V_{CE}$



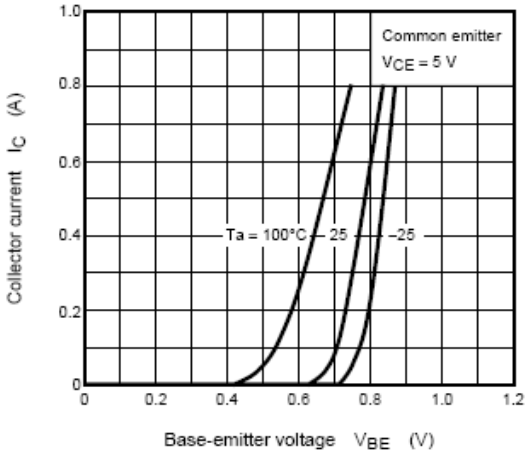
$h_{FE} - I_C$



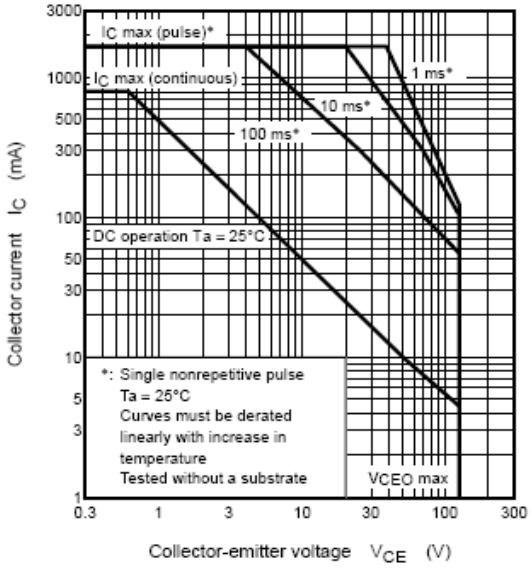
$V_{CE\ (sat)} - I_C$



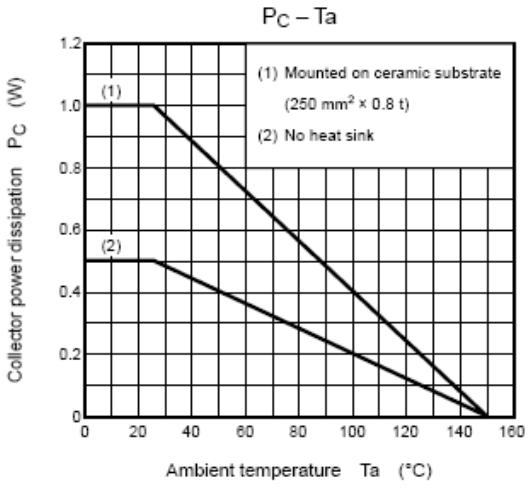
$I_C - V_{BE}$



Safe Operating Area



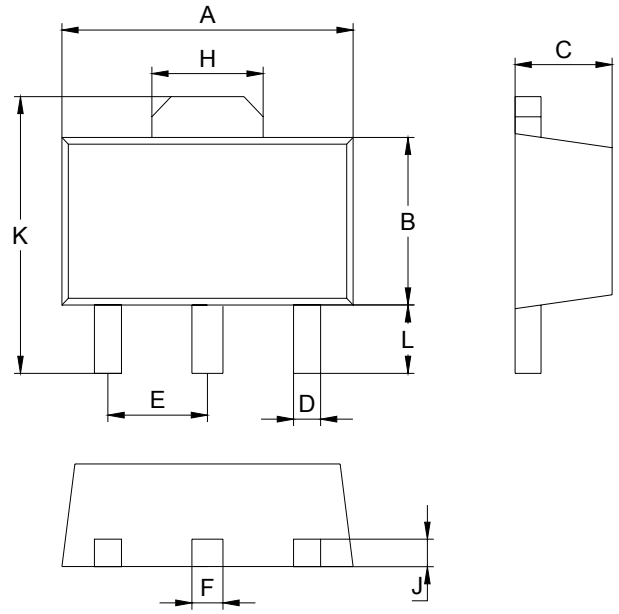
$P_C - Ta$



NPN Silicon Epitaxial Planar Transistor **2SC2881**

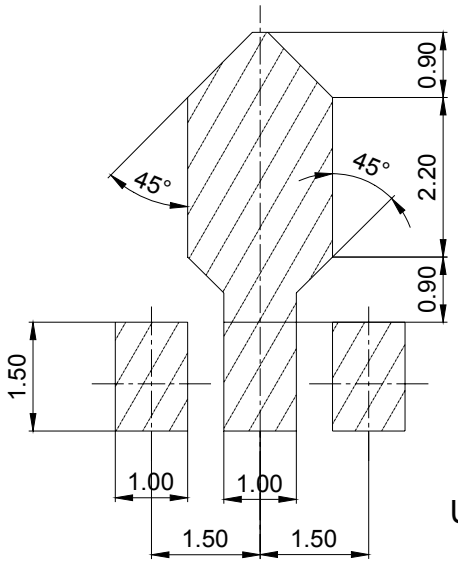
PACKAGE OUTLINE

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
2SC2881	SOT-89	1000/Tape&Reel