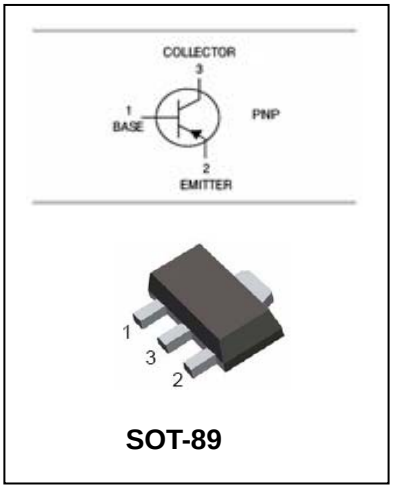
Silicon Planar Epitaxial Transistor 2SA1213

FEATURES

Lead-free

- Low saturation voltage
- High speed switching time
- Small flat package
- P_C=1.0 to 2.0W(mounted on ceramic substrate)
- Complementary to 2SC2873



SOT-89

ORDERING INFORMATION

Type No.	Marking	Package Code
2SA1213	NO/NY	SOT-89

MAXIMUM RATING @ Ta=25℃ unless otherwise specified

Symbol	Parameter	Value	Units
V_{CBO}	Collector-Base Voltage	-50	V
V_{CEO}	Collector-Emitter Voltage	-50	V
V_{EBO}	Emitter-Base Voltage	-5	V
I_C	Collector Current	-2	A
I_B	Base Current	-0.4	A
P_C	Collector Dissipation	500 1000(Note)	mW
T_j,T_{stg}	Junction and Storage Temperature	-55~150	℃

Note1:Mounted on ceramic substrate(250mm^2*0.8t)

Silicon Planar Epitaxial Transistor 2SA1213

ELECTRICAL CHARACTERISTICS @ Ta=25℃ unless otherwise specified

Parameter	Symbol	Test conditions	MIN	TYP	MAX	UNIT
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	I_C=-10mA,I_B=0	-50			V
Collector cut-off current	I_{CBO}	V_{CB}=-50V,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}=-2V,I_C=-0.5A	70		240	
		V_{CE}=-2V,I_C=-2.0A	20			
Collector-emitter saturation voltage	$V_{CE(sat)}$	I_C=-1A,I_B=-0.05A			-0.5	V
Base-emitter saturation voltage	$V_{BE(sat)}$	I_C=-1A,I_B=-0.05A	-0.5		-1.2	V
Transition frequency	f_T	V_{CE}=-2V, I_C=-0.5A		120		MHz
Collector output capacitance	C_{ob}	V_{CB}=-10V,I_E=0,f=1MHz		40		pF

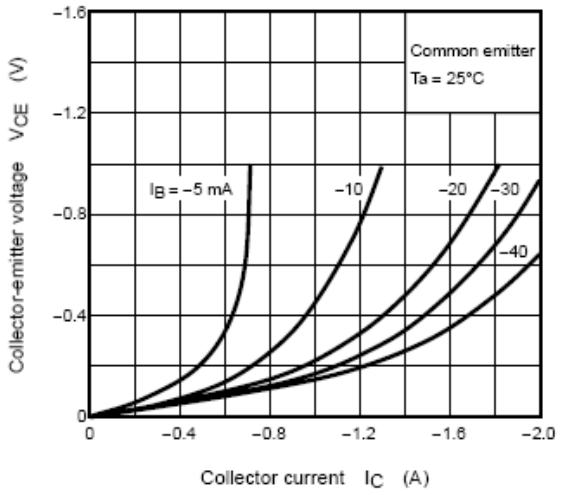
CLASSIFICATION OF h_{FE}

Rank	O	Y
Range	70-140	120-240
Marking	NO	NY

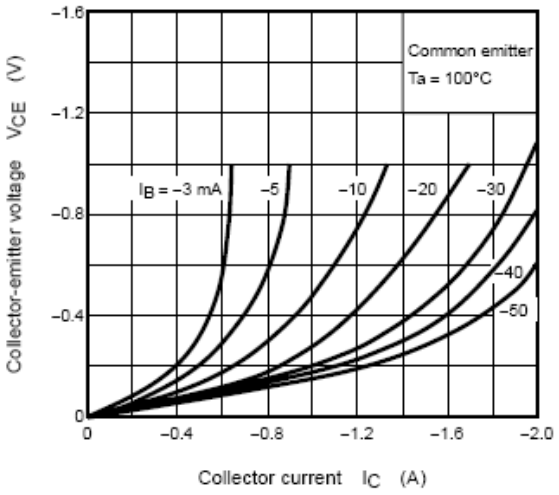
Silicon Planar Epitaxial Transistor 2SA1213

TYPICAL CHARACTERISTICS @ Ta=25℃ unless otherwise specified

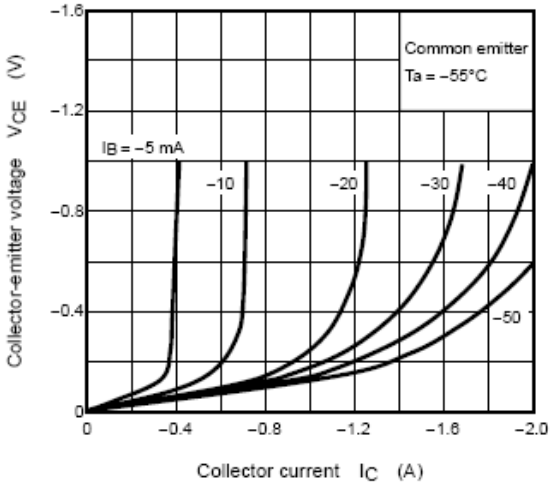
$V_{CE} - I_C$



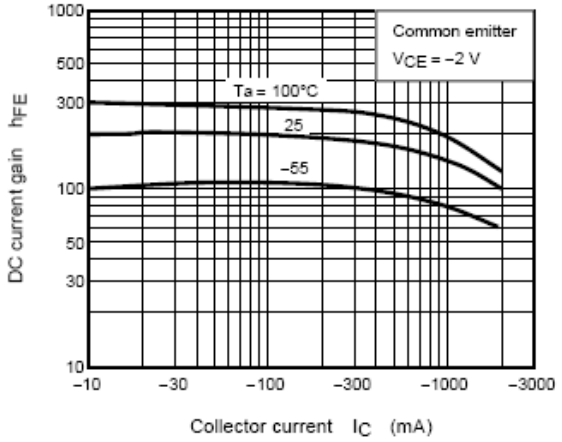
$V_{CE} - I_C$



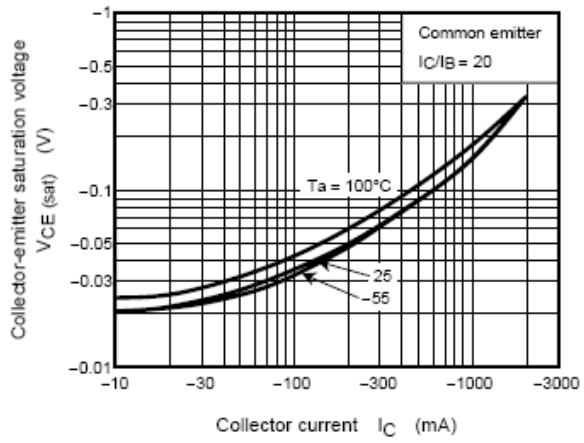
$V_{CE} - I_C$



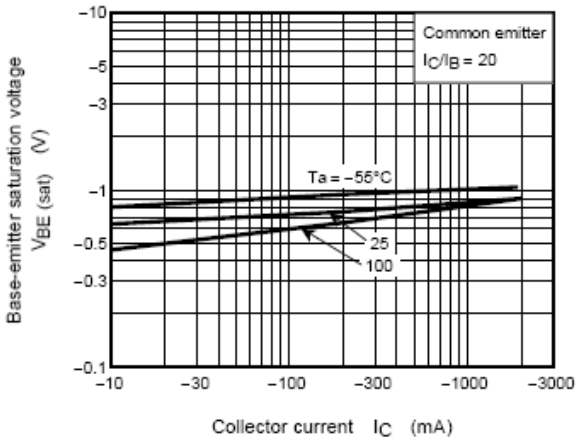
$h_{FE} - I_C$



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



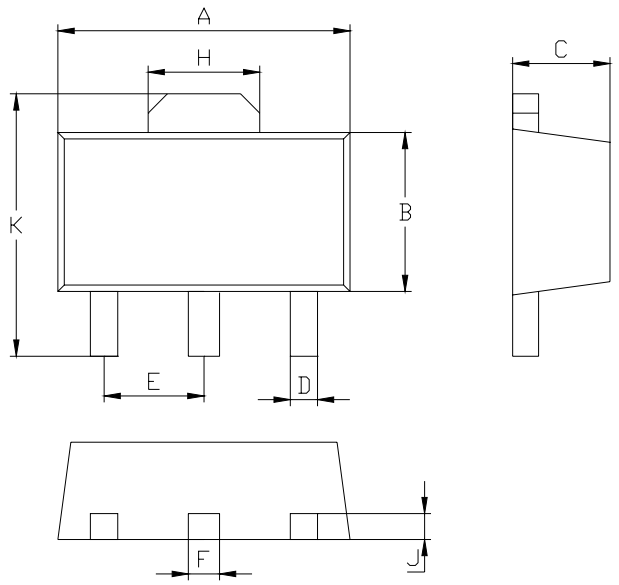
$V_{BE\ (sat)} - I_C$



PACKAGE OUTLINE

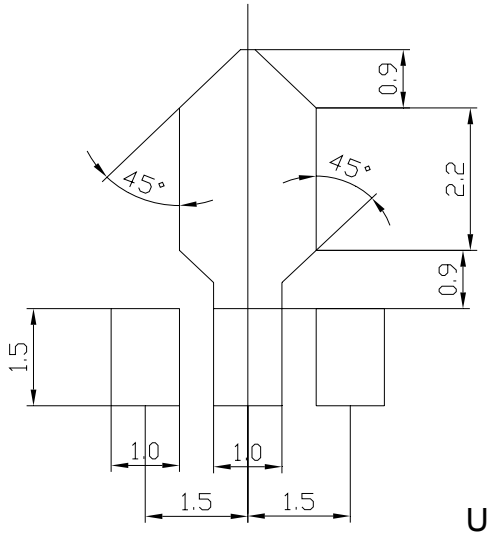
Silicon Planar Epitaxial Transistor 2SA1213

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
2SA1213	SOT-89	1000/Tape&Reel