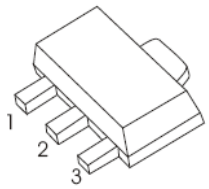
DONGGUAN NANJING ELECTRONICS LTD.,

SOT-89-3L Plastic-Encapsulate Transistors

SOT-89-3L



1. BASE
2. COLLECTOR
3. EMITTER

2SA1213 TRANSISTOR (PNP)

FEATURES

- Complementary to 2SC2873
- Small Flat Package
- Power Amplifier and Switching Applications
- Low Saturation Voltage
- High Speed Switching Time

MAXIMUM RATINGS (T_a=25℃ unless otherwise noted)

Symbol	Parameter	Value	Unit
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
P_C	Collector Power Dissipation	500	mW
$R_{\theta JA}$	Thermal Resistance From Junction To Ambient	250	℃/W
T_j	Junction Temperature	150	℃
T_{stg}	Storage Temperature	-55~+150	℃

ELECTRICAL CHARACTERISTICS (T_a=25℃ unless otherwise specified)

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	$V_{(BR)CBO}$	I_C= -0.1mA,I_E=0	-50			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	I_C=-10mA,I_B=0	-50			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	I_E=-0.1mA,I_C=0	-5			V
Collector cut-off current	I_{CBO}	V_{CB}=-50V,I_E=0			-100	nA
Emitter cut-off current	I_{EBO}	V_{EB}=-5V,I_C=0			-100	nA
DC current gain	h_{FE}	V_{CE}=-2V, I_C=-500mA	70		240	
		V_{CE}=-2V, I_C=-2A	20			
Collector-emitter saturation voltage	$V_{CE(sat)}$	I_C=-1A,I_B=-50mA			-0.5	V
Base-emitter saturation voltage	$V_{BE(sat)}$	I_C=-1A,I_B=-50mA			-1.2	V
Collector output capacitance	C_{ob}	V_{CB}=-10V,I_E=0, f=1MHz		40		pF
Transition frequency	f_T	V_{CE}=-2V,I_C= -0.5A	100			MHz

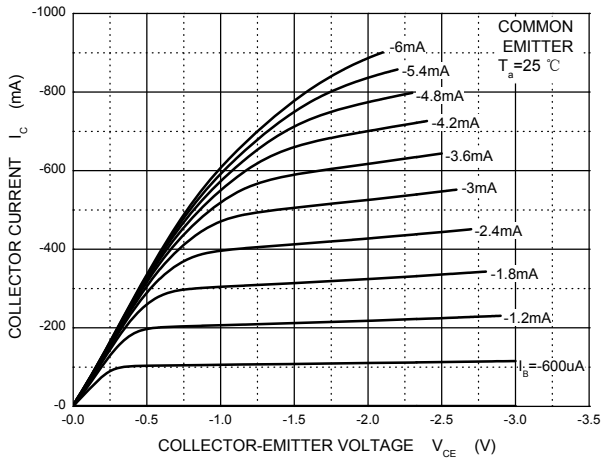
CLASSIFICATION OF h_{FE}

RANK	O	Y
RANGE	70 – 140	120 – 240
MARKING	NO	NY

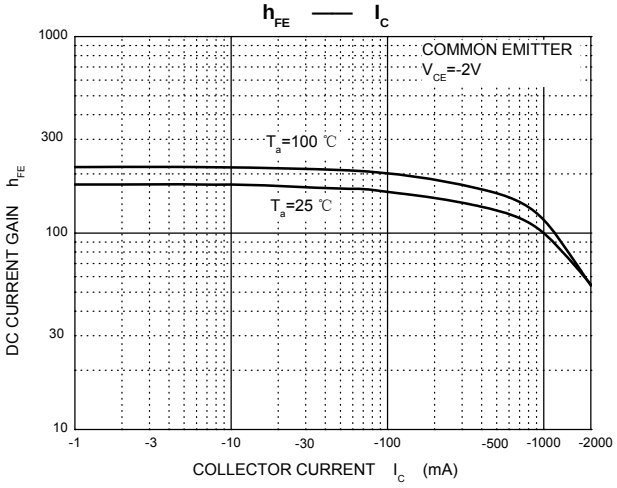
Typical Characterisitics

2SA1213

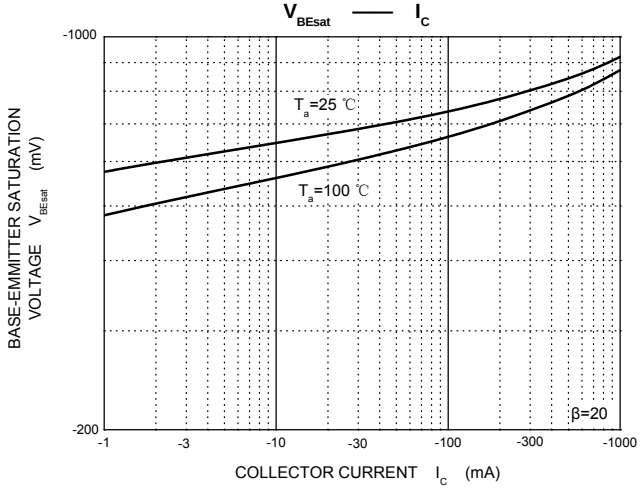
Static Characteristic



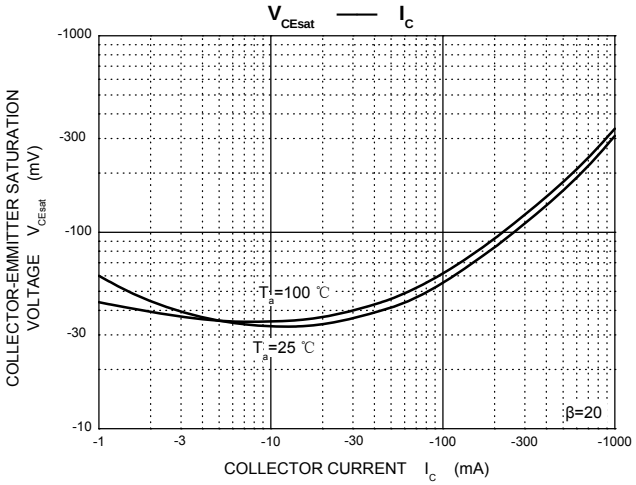
h_{FE} —— I_C



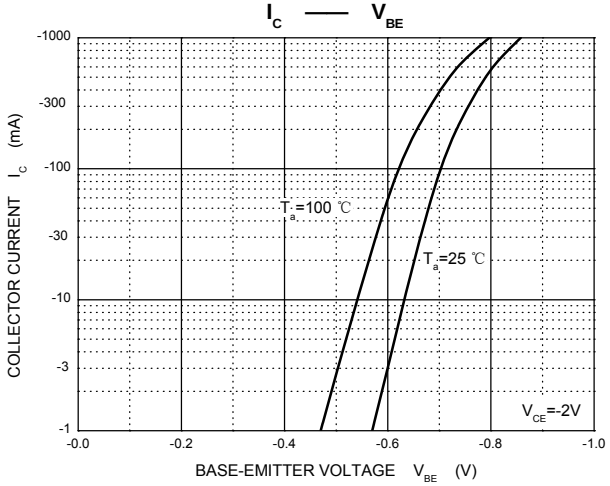
V_{BEsat} —— I_C



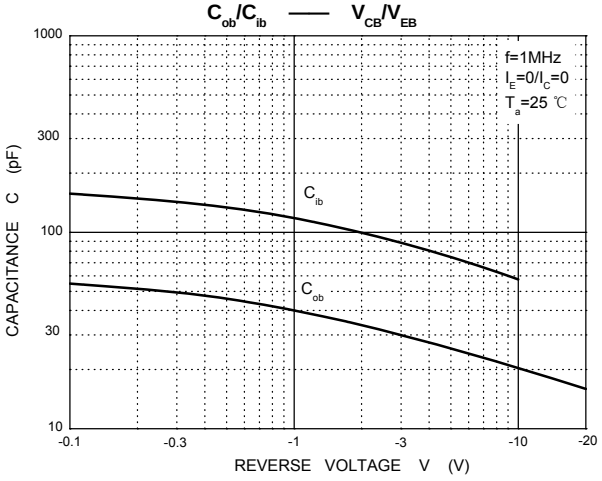
V_{CEsat} —— I_C



I_C —— V_{BE}



C_{ob}/C_{ib} —— V_{CB}/V_{EB}



P_C —— T_a