



SOT-89-3L Plastic-Encapsulate Transistors

2SC2873 TRANSISTOR (NPN)

FEATURES

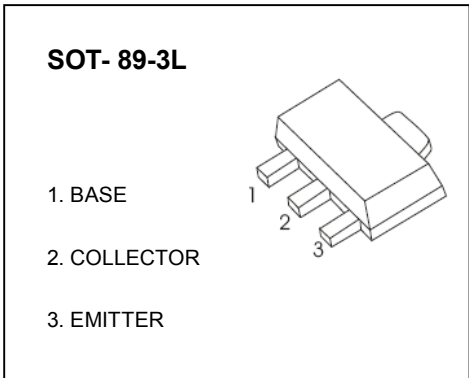
- Small Flat Package
- High Speed Switching Time
- Low Collector-emitter saturation voltage
- Complementary to 2SA1213

APPLICATIONS

- Power Amplifier and Switching

MAXIMUM RATINGS (T_a=25°C 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 _{θJA}	Thermal Resistance From Junction To Ambient	250	°C/W
T _j	Junction Temperature	150	°C
T _{stg}	Storage Temperature	-55~+150	°C



ELECTRICAL CHARACTERISTICS (T_a=25°C unless otherwise specified)

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	V _{(BR)CBO}	I _C =100μA, I _E =0	50			V
Collector-emitter breakdown voltage	V _{(BR)CEO}	I _C =1mA, I _B =0	50			V
Emitter-base breakdown voltage	V _{(BR)EBO}	I _E =100μA, I _C =0	5			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(1)}	V _{CE} =2V, I _C =0.5A	70		240	
	h _{FE(2)}	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
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		30		pF

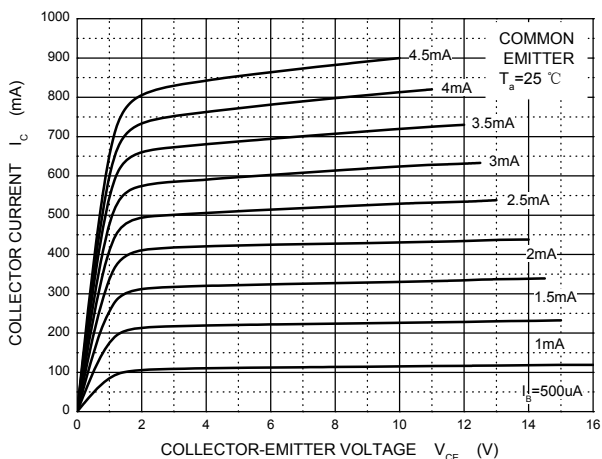
CLASSIFICATION OF h_{FE(1)}

RANK	O	Y
RANGE	70 - 140	120 - 240
MARKING	MO	MY

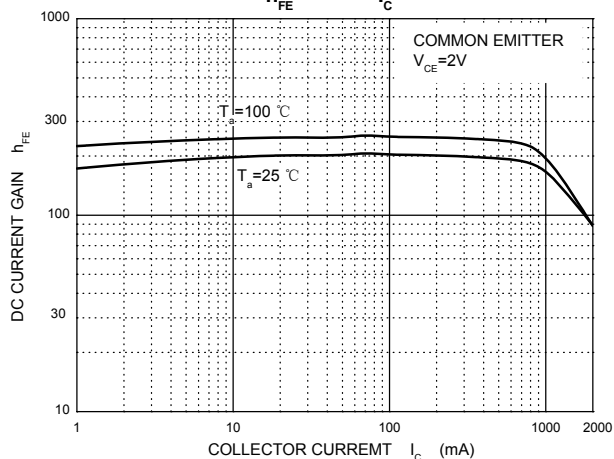
Typical Characteristics

2SC2873

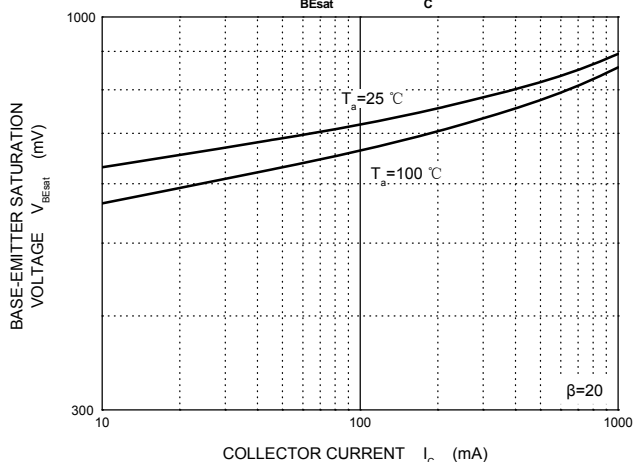
Static Characteristic



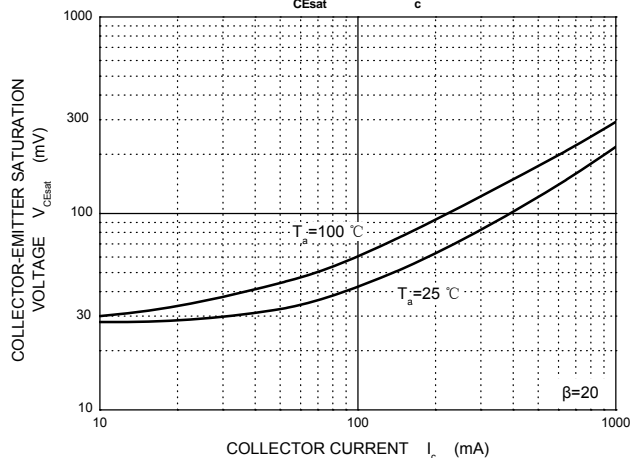
$h_{FE} - I_c$



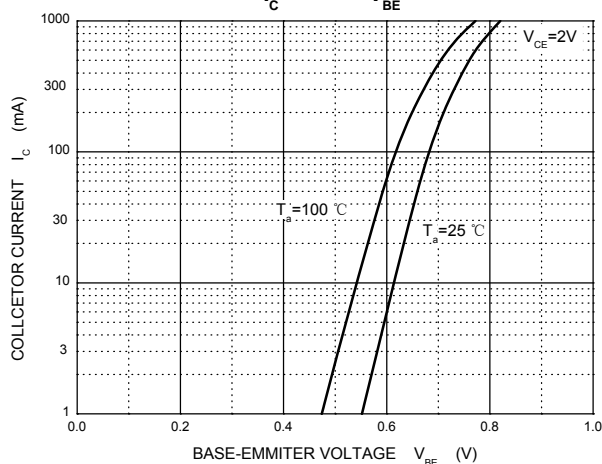
$V_{BEsat} - I_c$



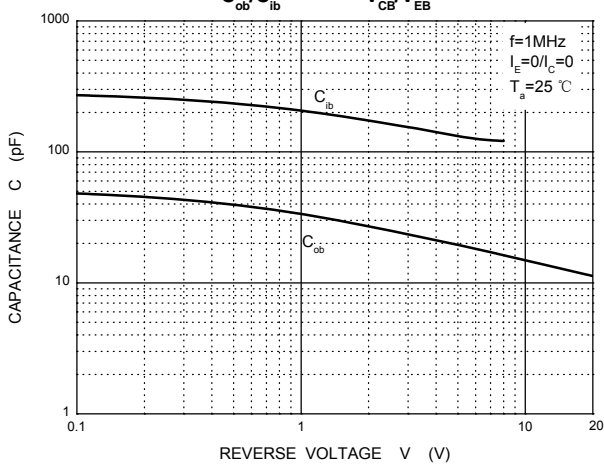
$V_{CEsat} - I_c$



$I_c - V_{BE}$



$C_{ob}/C_{ib} - V_{CB}/V_{EB}$



$P_c - T_a$

