2SC2873 TRANSISTOR (NPN)

1.BASE
2.COLLECTOR
3.EMITTER

SOT-89

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℃ 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,T_{stg}	Operation Junction and Storage Temperature Range	-55~+150	℃

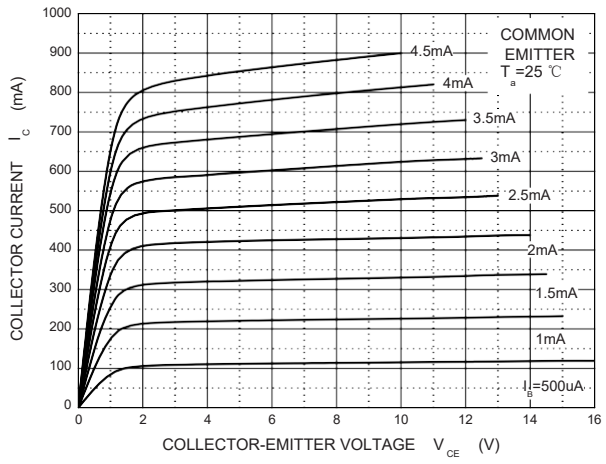
ELECTRICAL CHARACTERISTICS (T_a=25℃ unless otherwise specified)

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	$V_{(BR)CBO}$	I_C=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

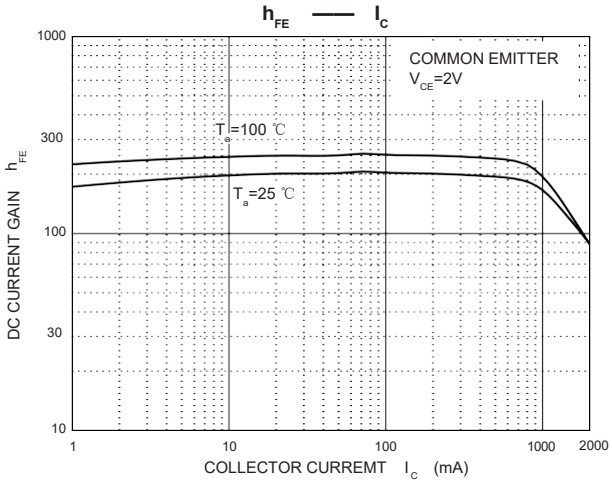
CLASSIFICATION OF $h_{FE(1)}$

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

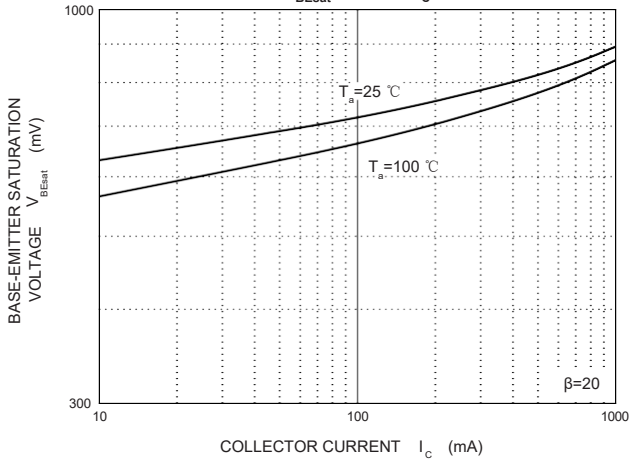
Static Characteristic



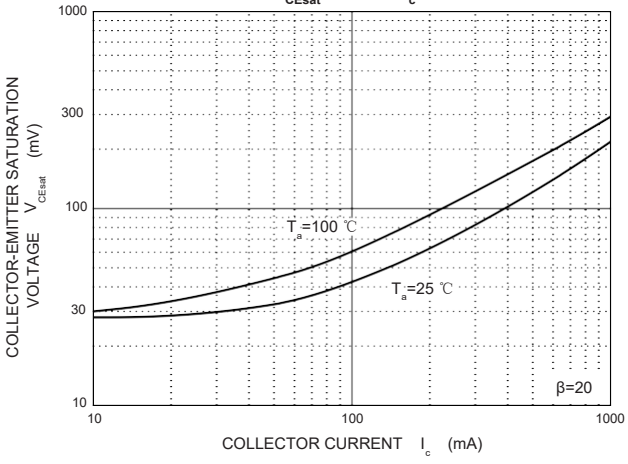
h_{FE} —— I_C



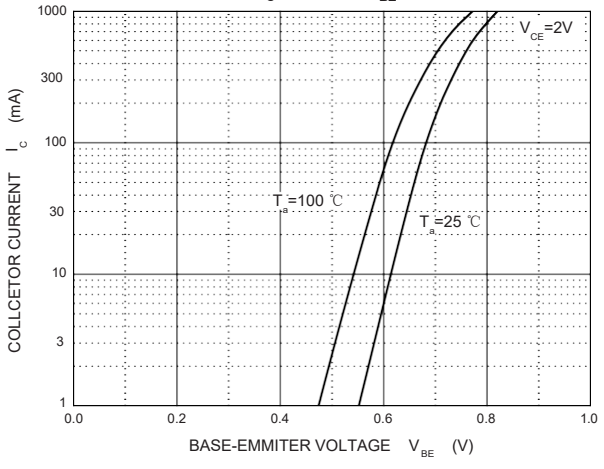
V_{BEsat} —— I_C



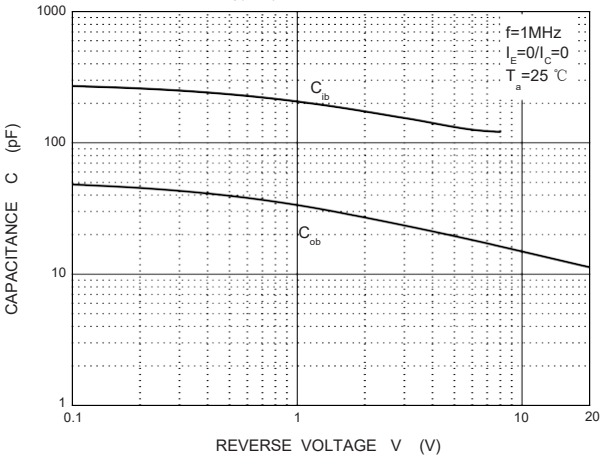
V_{CEsat} —— I_c



I_C —— V_{BE}



C_{ob}/C_{ib} —— V_{CB}/V_{EB}



P_C —— T_a