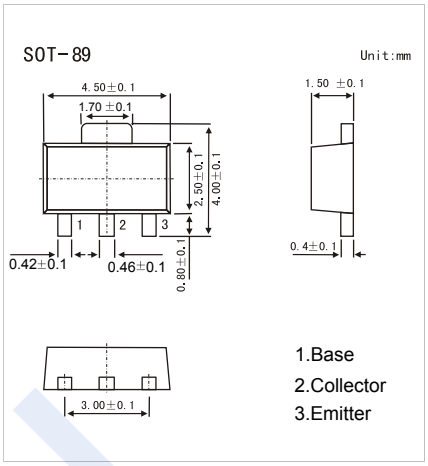
NPN Transistors

2SC2873



■ Features

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

■ Absolute Maximum Ratings Ta = 25℃

Parameter	Symbol	Rating	Unit
Collector - Base Voltage	V_{CBO}	50	V
Collector - Emitter Voltage	V_{CEO}	50	
Emitter - Base Voltage	V_{EBO}	5	
Collector Current - Continuous	I_C	2	A
Collector Power Dissipation	P_C	500	mW
Thermal Resistance From Junction To Ambient	$R_{\theta JA}$	250	℃/W
Junction Temperature	T_J	150	℃
Storage Temperature Range	T_{stg}	-55 to 150	

■ Electrical Characteristics Ta = 25℃

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector- base breakdown voltage	V_{CBO}	I_C= 100uA, I_E= 0	50			V
Collector- emitter breakdown voltage	V_{CEO}	I_C= 1mA, I_B= 0	50			
Emitter - base breakdown voltage	V_{EBO}	I_E= 100uA, I_C= 0	5			
Collector-base cut-off current	I_{CBO}	V_{CB}= 50V , I_E= 0			0.1	uA
Emitter cut-off current	I_{EBO}	V_{EB}= 5V , I_C=0			0.1	
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	
DC current gain	h_{FE}	V_{CE}= 2V, I_C= 0.5A	70		240	
		V_{CE}= 2V, I_C= 2A	20			
Collector output capacitance	C_{ob}	V_{CB}= 10V, I_E= 0,f=1MHz		30		pF
Transition frequency	f_T	V_{CE}= 2V, I_C= 0.5A		120		MHz

■ Classification of $h_{fe(1)}$

Type	2SC2873-O	2SC2873-Y
Range	70-140	120-240
Marking	MO	MY

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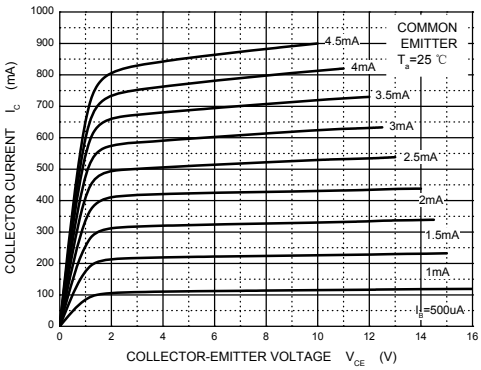
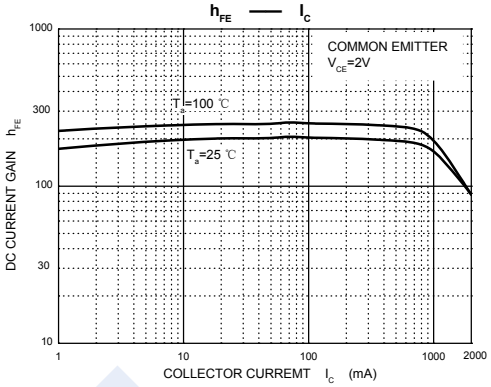
■ Typical Characterisitics

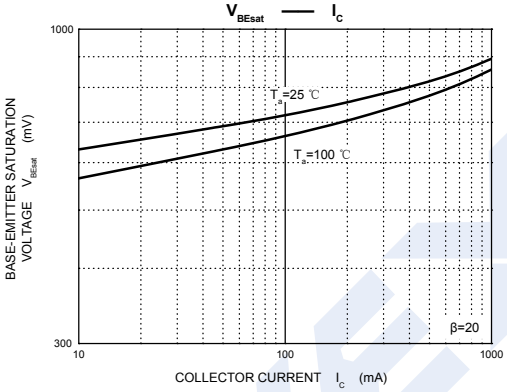
Static Characteristic



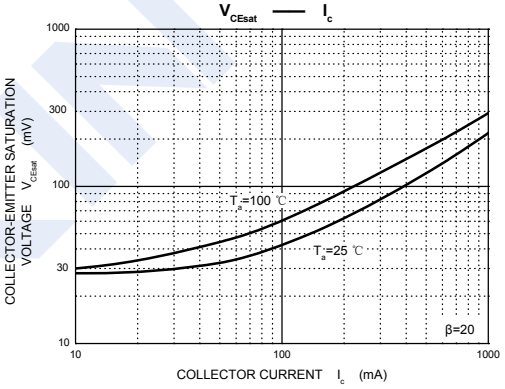
h_{FE} — I_C



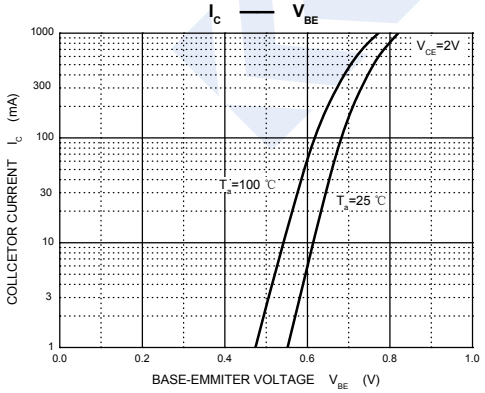
V_{BEsat} — I_C



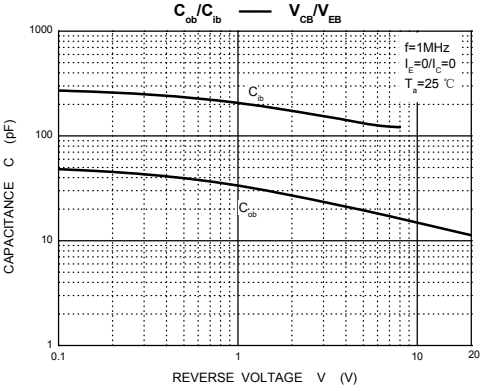
V_{CEsat} — I_c



I_C — V_{BE}



C_{ob}/C_{ib} — V_{CB}/V_{EB}



P_C — T_a