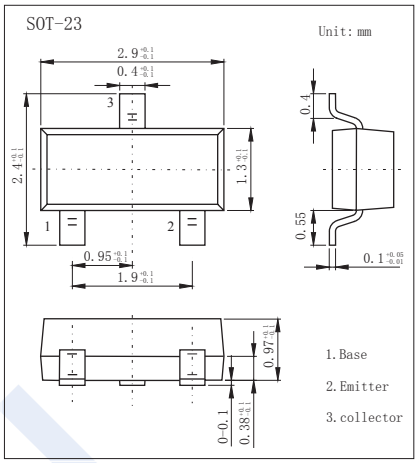
NPN Transistors

2SD1935



■ Features

- Large current capacity.
- Low collector to emitter saturation voltage.
- Complimentary to 2SB1295

■ Absolute Maximum Ratings Ta = 25℃

Parameter	Symbol	Rating	Unit
Collector - Base Voltage	V_{CBO}	15	V
Collector - Emitter Voltage	V_{CEO}	15	
Emitter - Base Voltage	V_{EBO}	5	
Collector Current - Continuous	I_C	800	mA
Collector Current - Pulse	I_{CP}	3	A
Collector Power Dissipation	P_C	200	mW
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= 100 μA, I_E= 0	15			V
Collector- emitter breakdown voltage	V_{CEO}	I_C= 1 mA, R_{BE}= ∞	15			
Emitter - base breakdown voltage	V_{EBO}	I_E= 100 μ A, I_C= 0	5			
Collector-base cut-off current	I_{CBO}	V_{CB}= 12 V , I_E= 0			0.1	uA
Emitter cut-off current	I_{EBO}	V_{EB}= 4V , I_C=0			0.1	
Collector-emitter saturation voltage	$V_{CE(sat)}$	I_C=5 mA, I_B=0.5mA		10	25	mV
		I_C=400 mA, I_B=20mA		100	200	
Base - emitter saturation voltage	$V_{BE(sat)}$	I_C=400 mA, I_B=20mA		0.9	1.2	V
DC current gain	h_{FE}	V_{CE}= 2V, I_C= 50mA	135		900	
		V_{CE}= 2V, I_C= 800mA	80			
Collector output capacitance	C_{ob}	V_{CB}= 10V, I_E=0,f=1MHz		10		pF
Transition frequency	f_T	V_{CE}= 2V, I_C= 50mA		200		MHz

■ Classification of $h_{fe(1)}$

Type	2SD1935-CT5	2SD1935-CT6	2SD1935-CT7	2SD1935-CT8
Range	135-270	200-400	300-600	450-900
Marking	CT5	CT6	CT7	CT8

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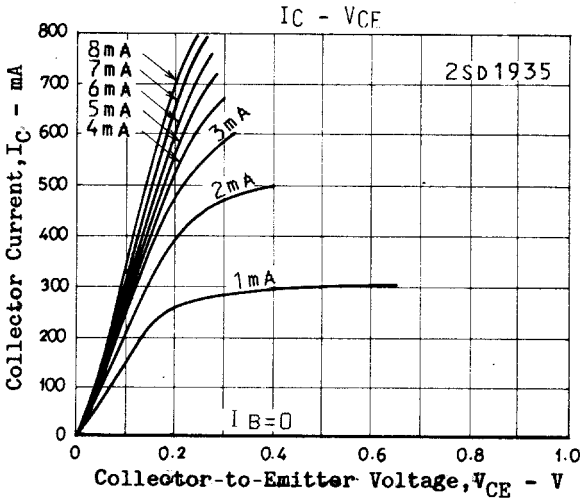
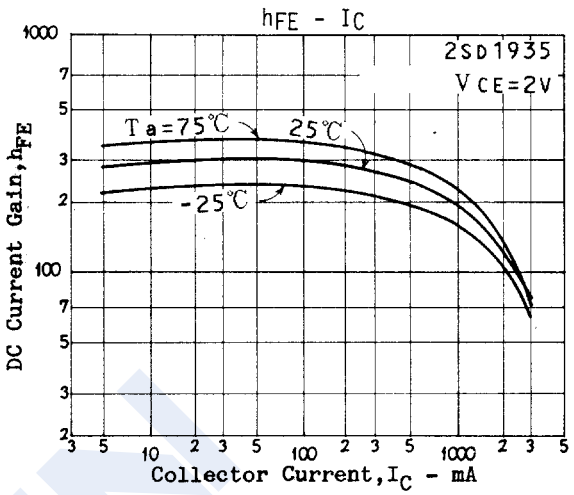
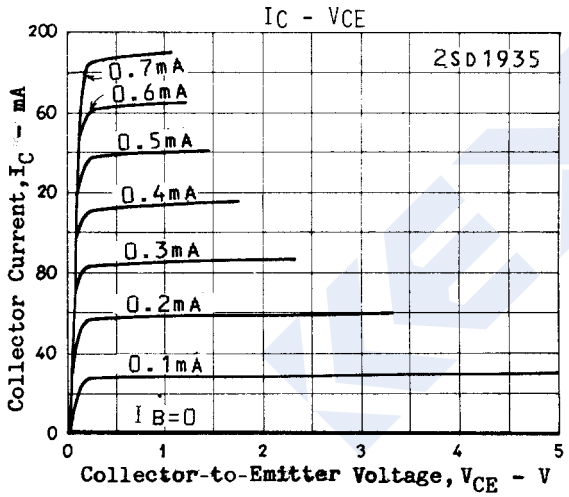
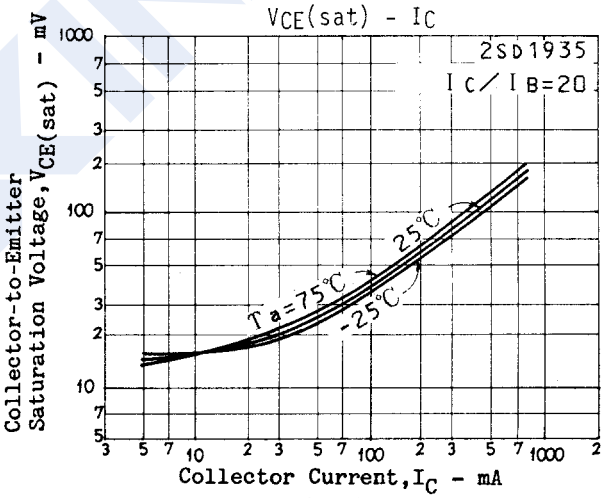
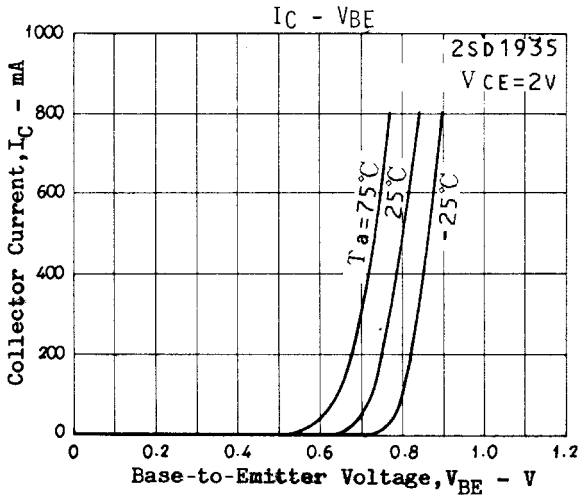
■ Typical Characterisitics

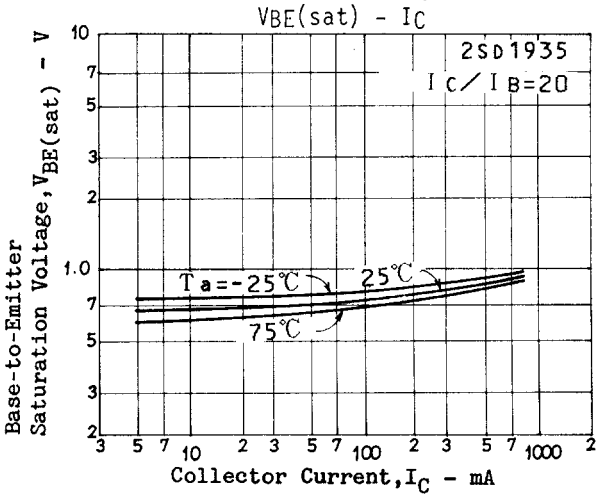












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■ Typical Characterisitics