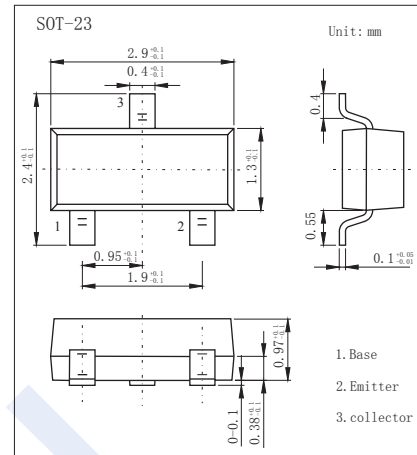


NPN Transistors

2SD1935

■ Features

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

■ Absolute Maximum Ratings $T_a = 25^\circ\text{C}$

Parameter	Symbol	Rating	Unit
Collector - Base Voltage	V_{CB0}	15	V
Collector - Emitter Voltage	V_{CE0}	15	
Emitter - Base Voltage	V_{EB0}	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	$^\circ\text{C}$
Storage Temperature Range	T_{stg}	-55 to 150	

■ Electrical Characteristics $T_a = 25^\circ\text{C}$

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector- base breakdown voltage	V_{CB0}	$I_C = 100\ \mu\text{A}, I_E = 0$	15			V
Collector- emitter breakdown voltage	V_{CE0}	$I_C = 1\ \text{mA}, R_{BE} = \infty$	15			
Emitter - base breakdown voltage	V_{EB0}	$I_E = 100\ \mu\text{A}, I_C = 0$	5			
Collector-base cut-off current	I_{CB0}	$V_{CB} = 12\ \text{V}, I_E = 0$			0.1	μA
Emitter cut-off current	I_{EB0}	$V_{EB} = 4\ \text{V}, I_C = 0$			0.1	
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C = 5\ \text{mA}, I_B = 0.5\ \text{mA}$		10	25	mV
		$I_C = 400\ \text{mA}, I_B = 20\ \text{mA}$		100	200	
Base - emitter saturation voltage	$V_{BE(sat)}$	$I_C = 400\ \text{mA}, I_B = 20\ \text{mA}$		0.9	1.2	V
DC current gain	h_{FE}	$V_{CE} = 2\ \text{V}, I_C = 50\ \text{mA}$	135		900	
		$V_{CE} = 2\ \text{V}, I_C = 800\ \text{mA}$	80			
Collector output capacitance	C_{ob}	$V_{CB} = 10\ \text{V}, I_E = 0, f = 1\ \text{MHz}$		10		pF
Transition frequency	f_T	$V_{CE} = 2\ \text{V}, I_C = 50\ \text{mA}$		200		MHz

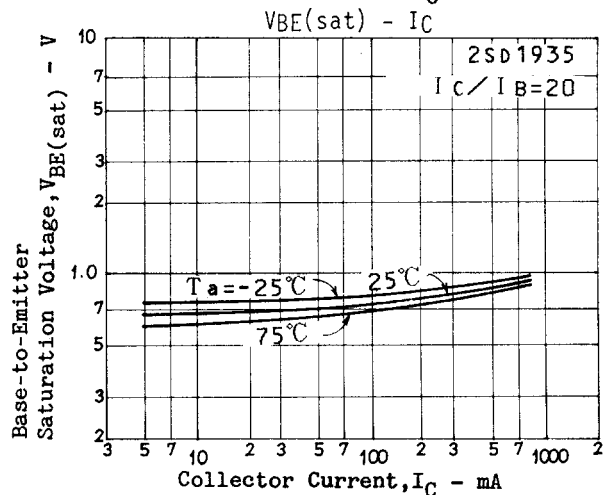
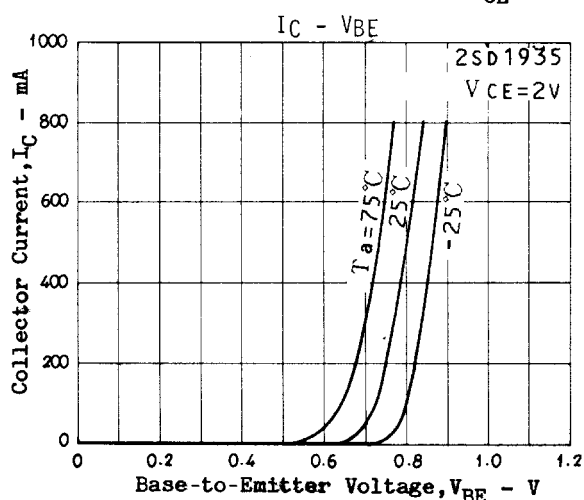
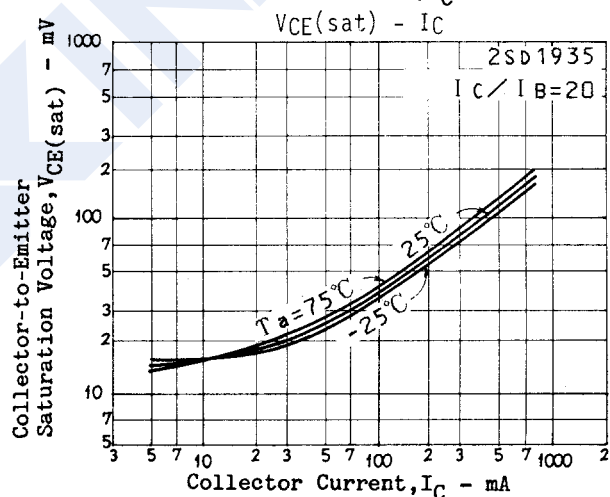
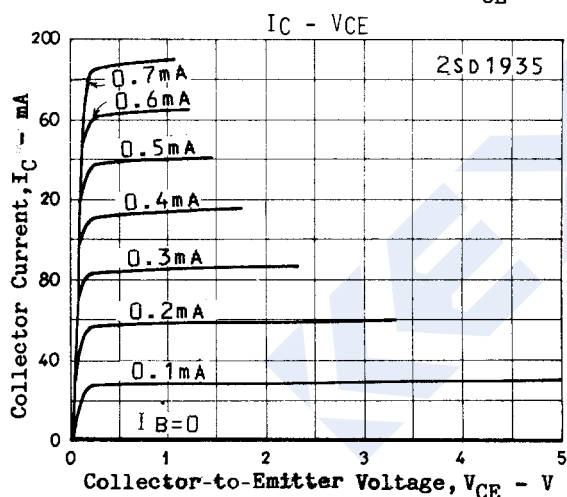
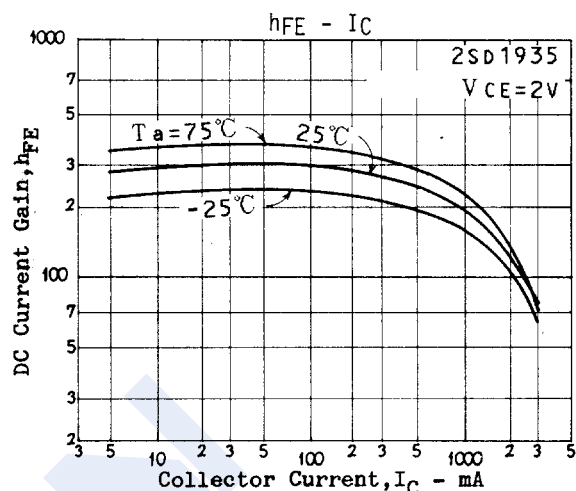
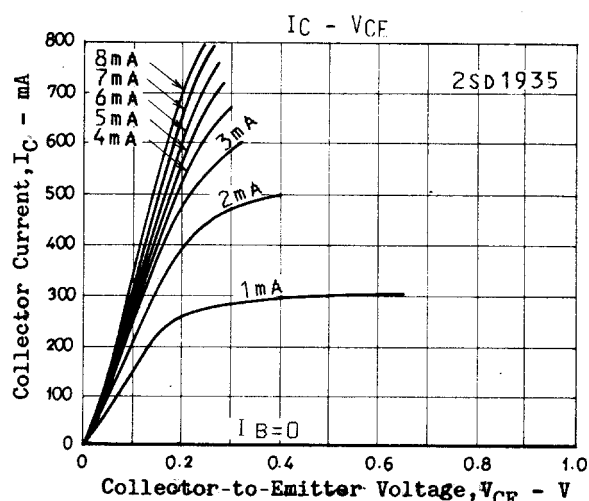
■ Classification of $h_{FE}(1)$

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

NPN Transistors

2SD1935

■ Typical Characteristics



NPN Transistors

2SD1935

■ Typical Characteristics

