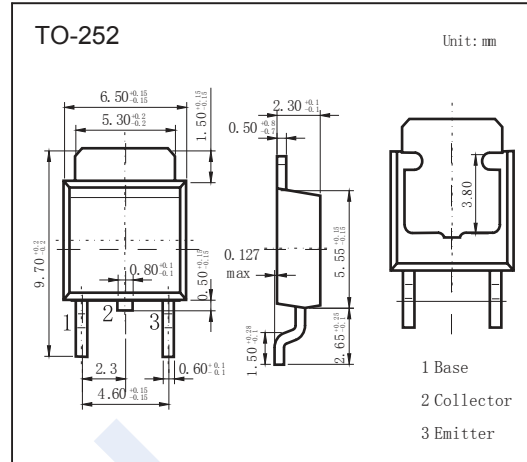


NPN Transistors

2SC4976



■ Features

- High f_T : $f_T=400\text{MHz}(\text{typ})$.
- High breakdown voltage
- Large current capacitance.
- Complementary to 2SA1875

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

Parameter	Symbol	Rating	Unit
Collector - Base Voltage	V_{CB0}	200	V
Collector - Emitter Voltage	V_{CE0}	200	
Emitter - Base Voltage	V_{EB0}	3	
Collector Current - Continuous	I_C	300	mA
Collector Current - Pulse	I_{CP}	600	
Base Current	I_B	30	W
Collector Power Dissipation $T_c = 25^\circ\text{C}$	P_C	0.8	
		12	
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}	$I_C = 100 \mu\text{A}, I_E = 0$	200			V
Collector- emitter breakdown voltage	V_{CE0}	$I_C = 1 \text{ mA}, R_{BE} = \infty$	200			
Emitter - base breakdown voltage	V_{EB0}	$I_E = 100 \mu\text{A}, I_C = 0$	3			
Collector-base cut-off current	I_{CBO}	$V_{CB} = 150\text{V}, I_E = 0$			0.1	μA
Emitter cut-off current	I_{EBO}	$V_{EB} = 2\text{V}, I_C = 0$			1	
Collector-emitter saturation voltage	$V_{CE(\text{sat})}$	$I_C = 50\text{mA}, I_B = 5\text{mA}$			1	V
Base - emitter saturation voltage	$V_{BE(\text{sat})}$	$I_C = 50\text{mA}, I_B = 5\text{mA}$			1	
DC current gain	h_{FE}	$V_{CE} = 10\text{V}, I_C = 50\text{mA}$	60		320	
		$V_{CE} = 10\text{V}, I_C = 250\text{mA}$	20			
Reverse Transfer Capacitance	C_{re}	$V_{CB} = 30\text{V}, f = 1\text{MHz}$		3.4		pF
Collector output capacitance	C_{ob}	$V_{CB} = 30\text{V}, f = 1\text{MHz}$		4.2		
Transition frequency	f_T	$V_{CE} = 10\text{V}, I_C = 100\text{mA}$		400		MHz

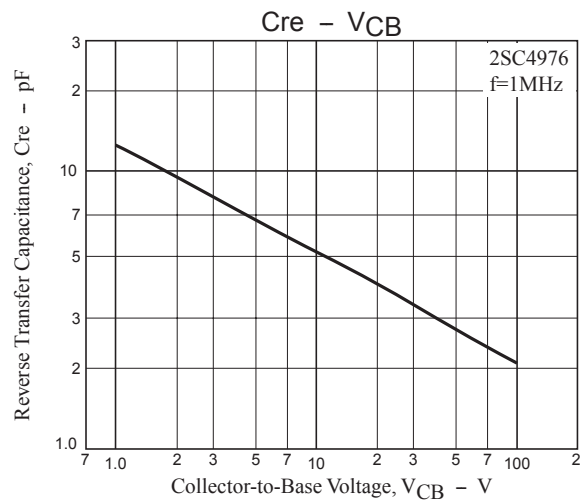
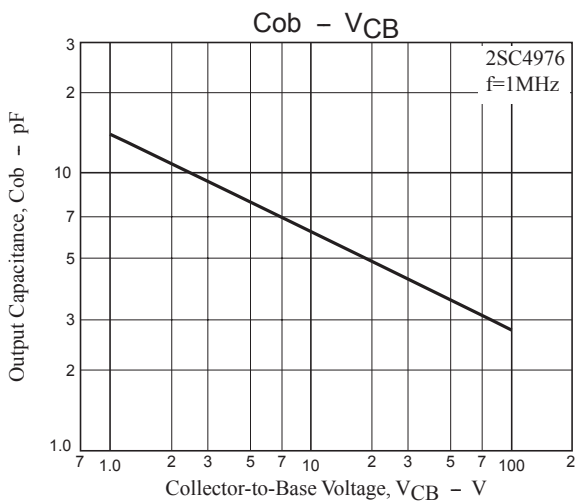
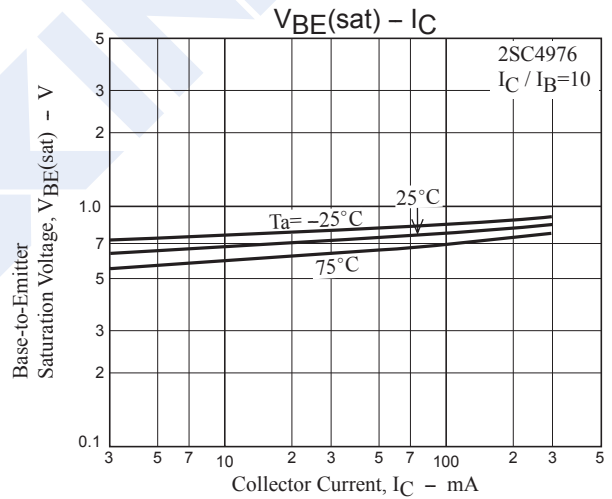
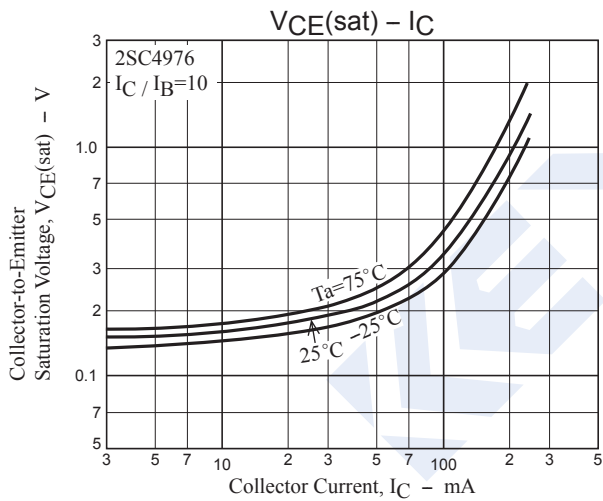
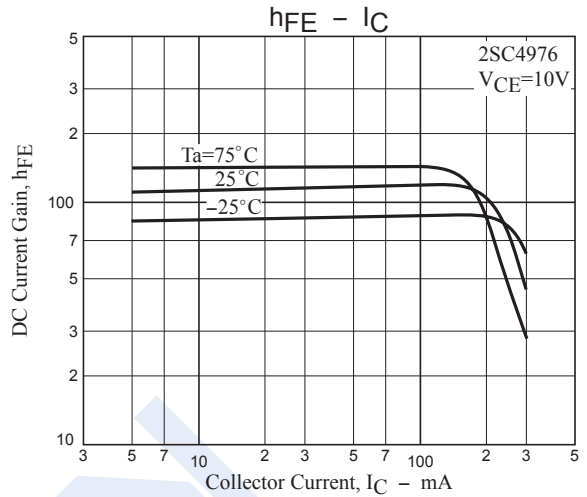
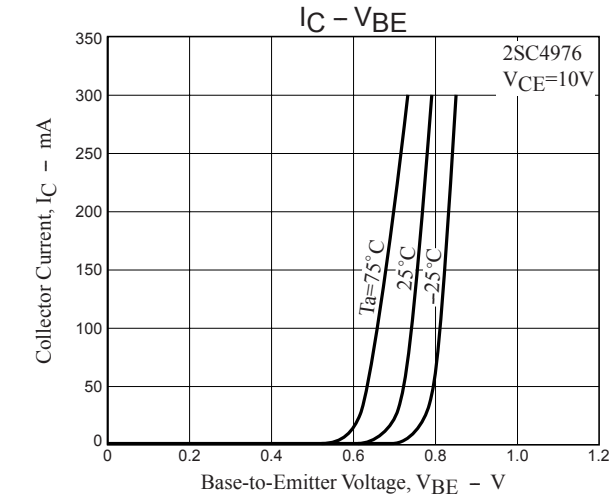
■ Classification of $h_{FE}(1)$

Type	2SC4976-D	2SC4976-E	2SC4976-F
Range	60-120	100-200	160-320

NPN Transistors

2SC4976

■ Typical Characteristics



NPN Transistors

2SC4976

■ Typical Characteristics

