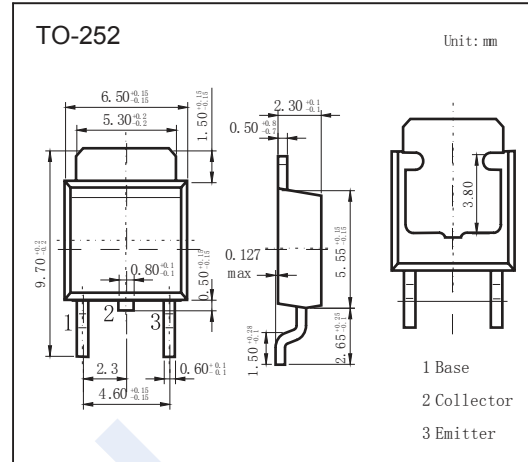


## NPN Transistors

## 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	$\mu\text{A}$
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

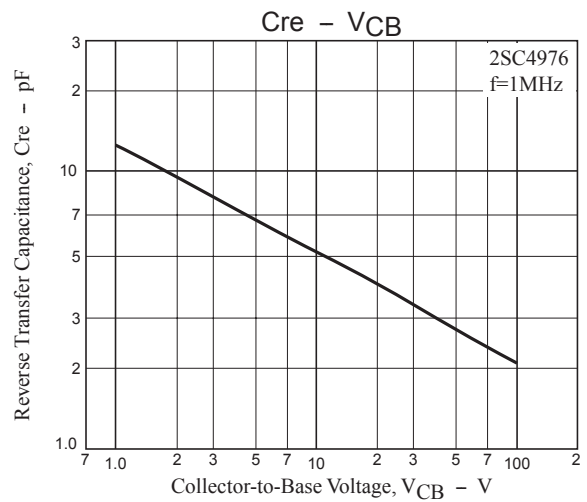
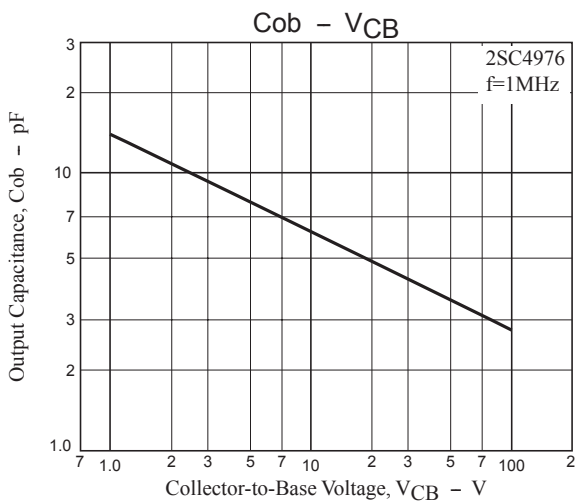
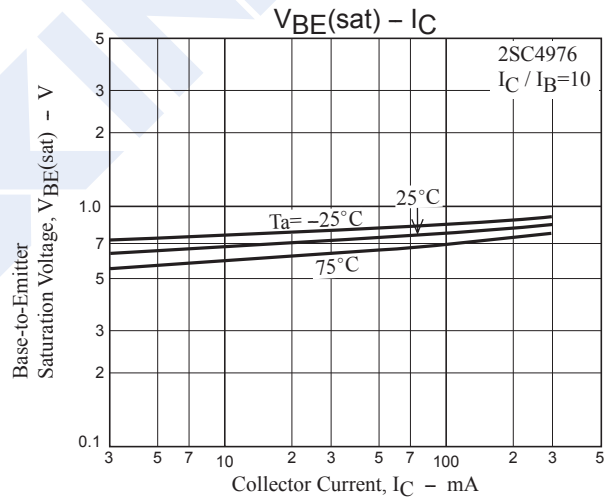
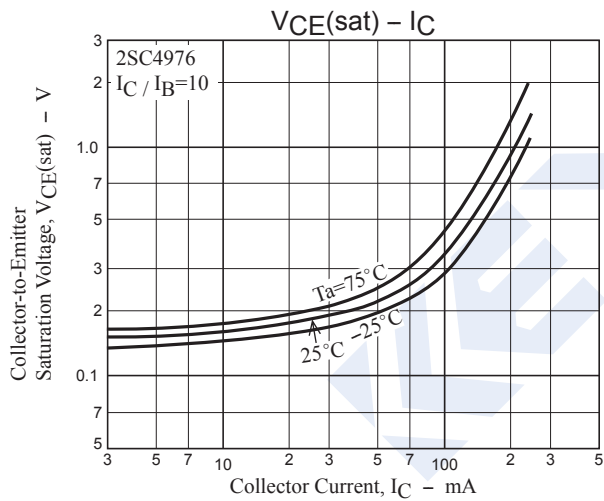
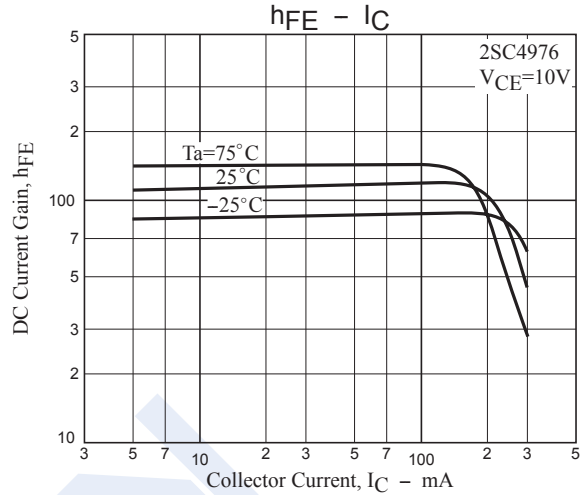
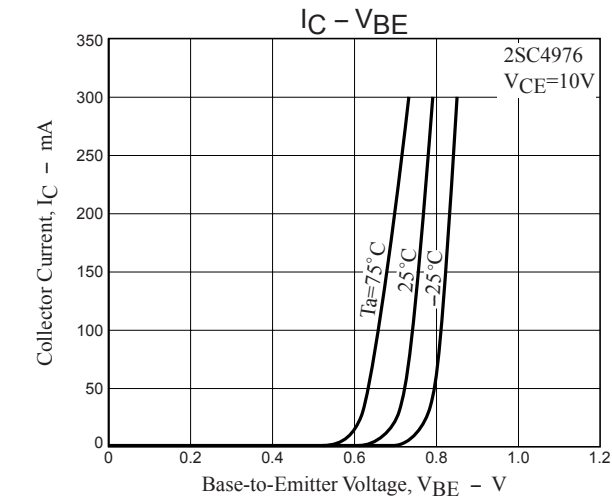
#### ■ Classification of $h_{FE}(1)$

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

## NPN Transistors

### 2SC4976

■ Typical Characteristics



## NPN Transistors

### 2SC4976

■ Typical Characteristics

