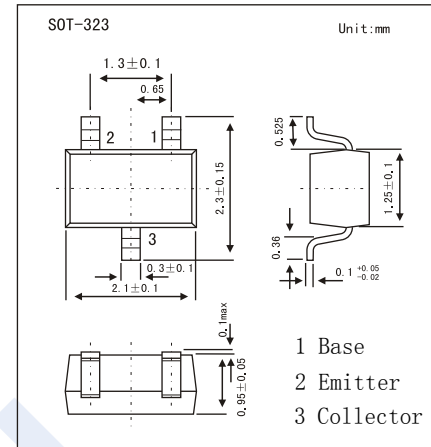


## NPN Transistors

### 2SC5343UF

#### ■ Features

- Low collector saturation voltage :  $V_{CE}=0.25V(\text{Max.})$
- Low output capacitance :  $C_{ob}=2pF(\text{Typ.})$
- Complementary to 2SA1980UF



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

Parameter	Symbol	Rating	Unit
Collector - Base Voltage	$V_{CBO}$	60	V
Collector - Emitter Voltage	$V_{CEO}$	50	
Emitter - Base Voltage	$V_{EBO}$	5	
Collector Current - Continuous	$I_C$	150	mA
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	$V_{CBO}$	$I_C = 100 \mu\text{A}, I_E = 0$	60			V
Collector- emitter breakdown voltage	$V_{CEO}$	$I_C = 1 \text{mA}, I_B = 0$	50			
Emitter - base breakdown voltage	$V_{EBO}$	$I_E = 100 \mu\text{A}, I_C = 0$	5			
Collector-base cut-off current	$I_{CBO}$	$V_{CB} = 60V, I_E = 0$			0.1	$\mu\text{A}$
Emitter cut-off current	$I_{EBO}$	$V_{EB} = 5V, I_C = 0$			0.1	
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C = 100\text{mA}, I_B = 10\text{mA}$			0.25	V
Base - emitter saturation voltage	$V_{BE(sat)}$	$I_C = 100\text{mA}, I_B = 10\text{mA}$			1.2	
DC current gain	$h_{FE}$	$V_{CE} = 6V, I_C = 2\text{mA}$	70		700	
Noise figure	NF	$V_{CE} = 6V, I_C = 0.1\text{mA}, f = 1\text{KHz}, R_g = 10\text{K}\Omega$			10	dB
Collector output capacitance	$C_{ob}$	$V_{CB} = 6V, I_E = 0, f = 1\text{MHz}$		2	3.5	pF
Transition frequency	$f_T$	$V_{CE} = 10V, I_C = 1\text{mA}$	80			MHz

#### ■ Classification of $h_{FE}$

Type	2SC5343UF-O	2SC5343UF-Y	2SC5343UF-G	2SC5343UF-L
Range	70-140	120-240	200-400	300-700
Marking	DO	DY	DG	DL

# NPN Transistors

## 2SC5343UF

■ Typical Characteristics

Fig. 1  $P_C - T_a$

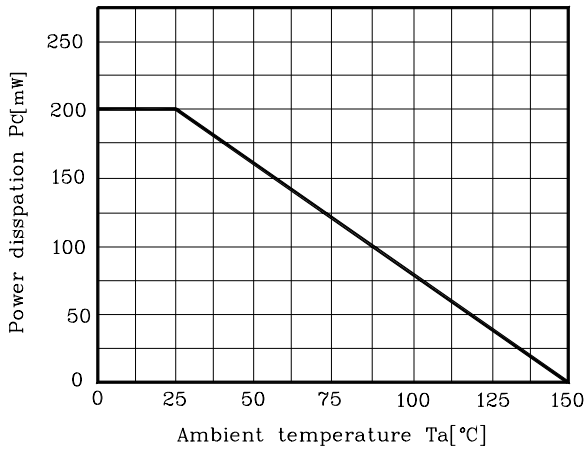


Fig. 2  $I_C - V_{BE}$

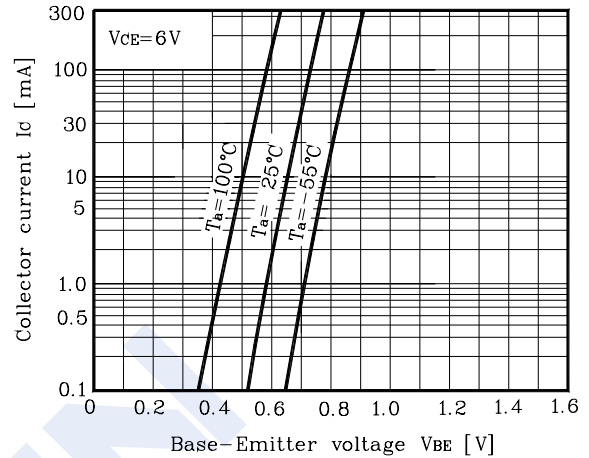


Fig. 3  $I_C - V_{CE}$

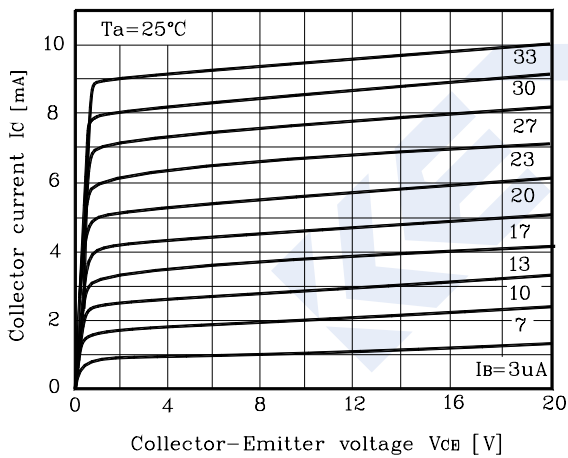


Fig. 4  $h_{FE} - I_C$

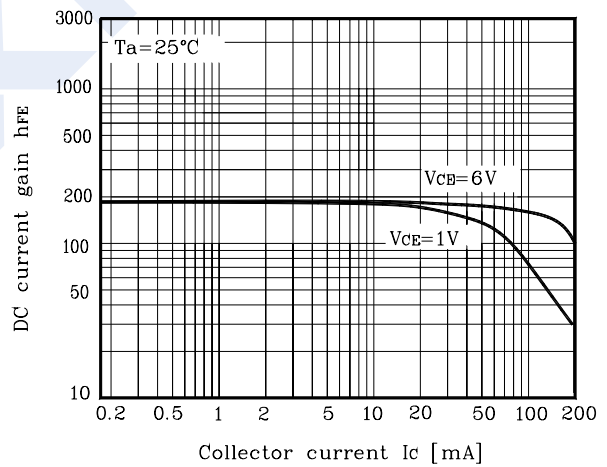


Fig. 5  $V_{CE(sat)} - I_C$

