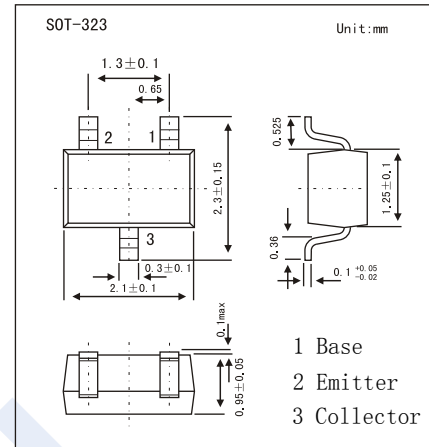


NPN Transistors

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	μA
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

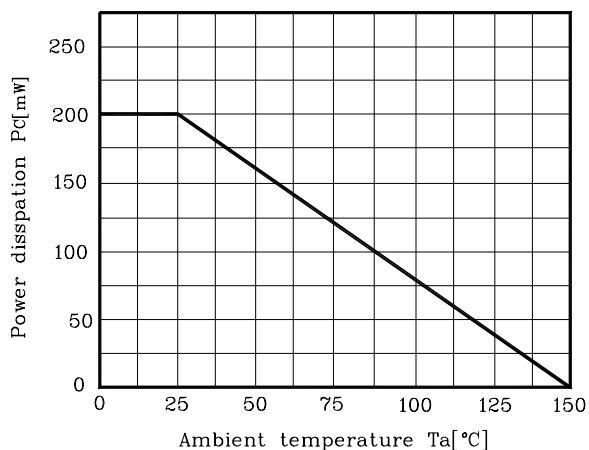
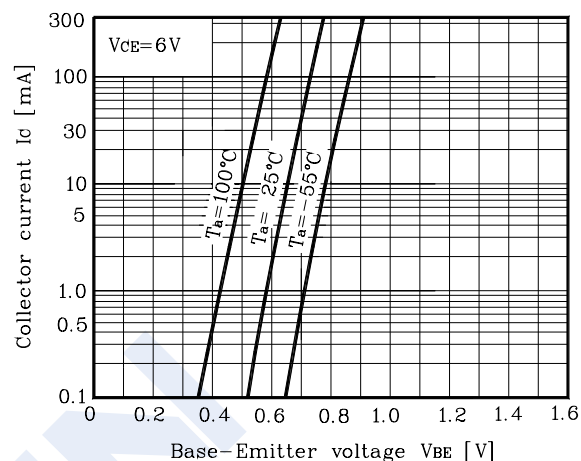
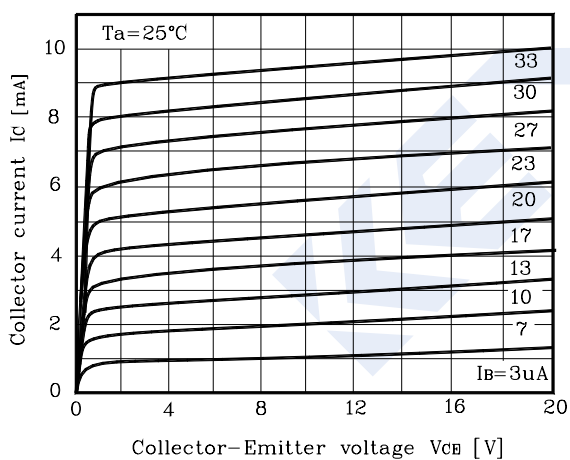
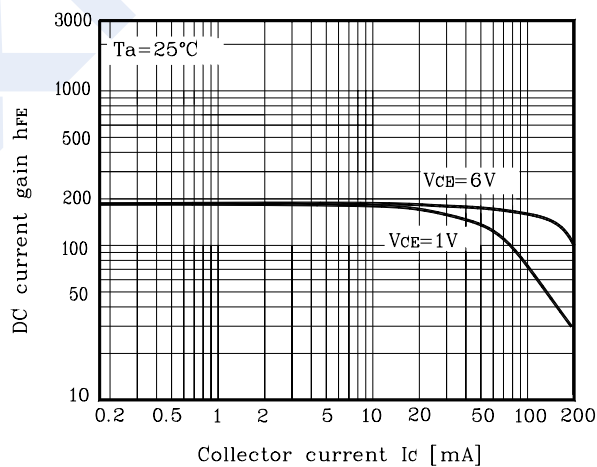
■ Classification of h_{FE}

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 $V_{CE(sat)} - I_C$ 