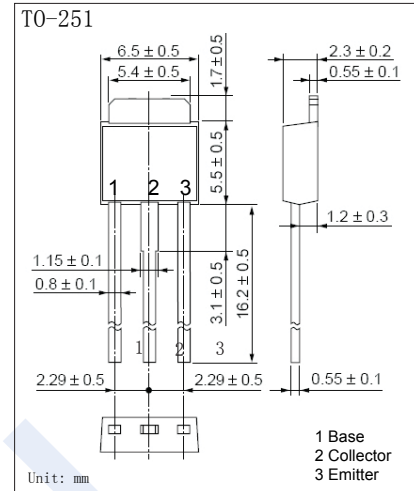


NPN Transistors

2SC3074

■ Features

- Low collector saturation voltage
- High speed switching time: $t_{stg} = 1.0 \mu s$ (typ.)
- Complementary to 2SA1244



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

Parameter	Symbol	Rating	Unit
Collector - Base Voltage	V_{CB0}	60	V
Collector - Emitter Voltage	V_{CE0}	50	
Emitter - Base Voltage	V_{EB0}	5	
Collector Current - Continuous	I_C	5	A
Base current	I_B	1	
Collector Power Dissipation	$T_a = 25^\circ C$	1	W
	$T_c = 25^\circ C$	20	
Junction Temperature	T_J	150	$^\circ C$
Storage Temperature Range	T_{stg}	-55 to 150	

■ Electrical Characteristics $T_a = 25^\circ C$

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector- base breakdown voltage	V_{CB0}	$I_C = 100 \mu A, I_E = 0$	60			V
Collector- emitter breakdown voltage	V_{CE0}	$I_C = 10 mA, I_B = 0$	50			
Emitter - base breakdown voltage	V_{EB0}	$I_E = 100 \mu A, I_C = 0$	5			
Collector-base cut-off current	I_{CBO}	$V_{CB} = 50 V, I_E = 0$			1	μA
Emitter cut-off current	I_{EBO}	$V_{EB} = 5 V, I_C = 0$			1	
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C = 3 A, I_B = 150 mA$			0.4	V
Base - emitter saturation voltage	$V_{BE(sat)}$	$I_C = 3 A, I_B = 150 mA$			1.2	
DC current gain	$h_{FE(1)}$	$V_{CE} = 1 V, I_C = 1 A$	70		240	
	$h_{FE(2)}$	$V_{CE} = 1 V, I_C = 3 A$	30			
Turn-on time	t_{on}	<p>$20 \mu s$ $I_{B1} = 0.15 A, I_{B2} = 0.15 A$ Duty cycle $\leq 1\%$ $V_{CC} = 30 V$</p>		0.1	μs	
Storage time	t_{stg}					1
Fall time	t_f					0.1
Collector output capacitance	C_{ob}	$V_{CB} = 10 V, I_E = 0, f = 1 MHz$		80		μF
Transition frequency	f_t	$V_{CE} = 4 V, I_C = 1 A$		120		MHz

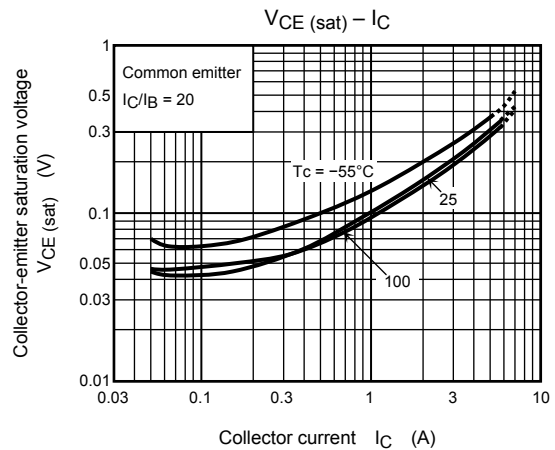
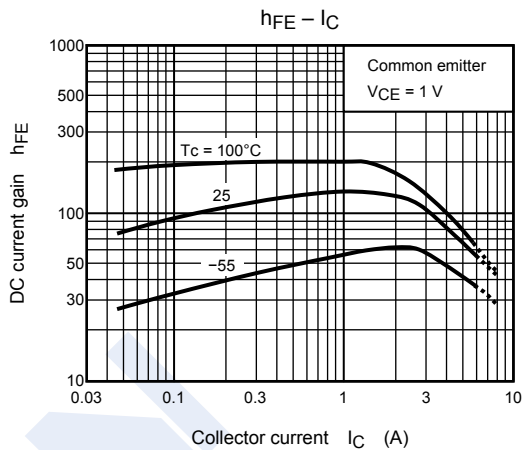
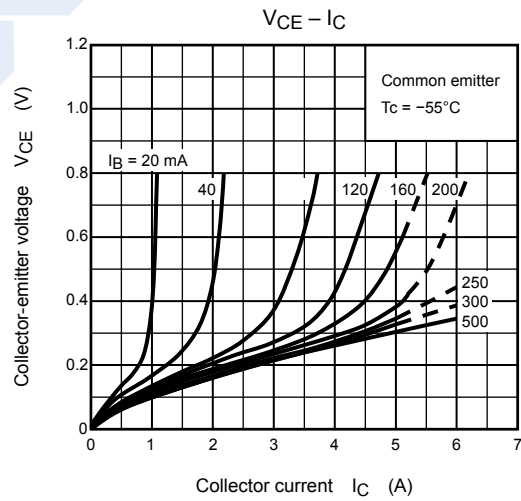
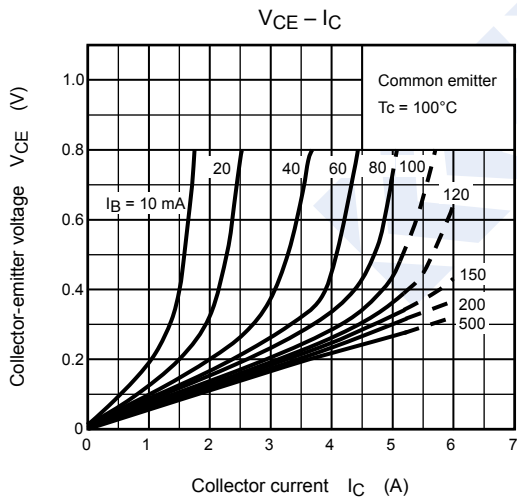
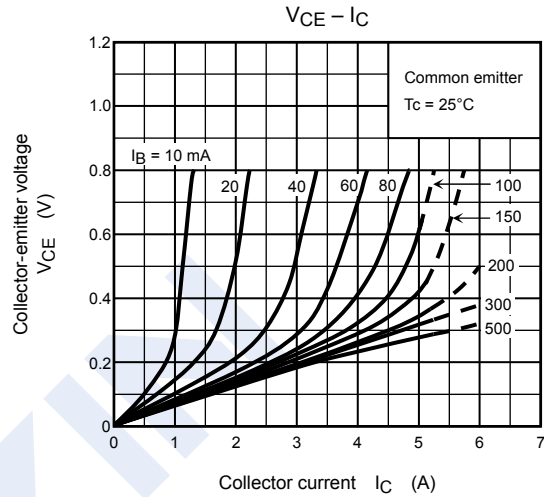
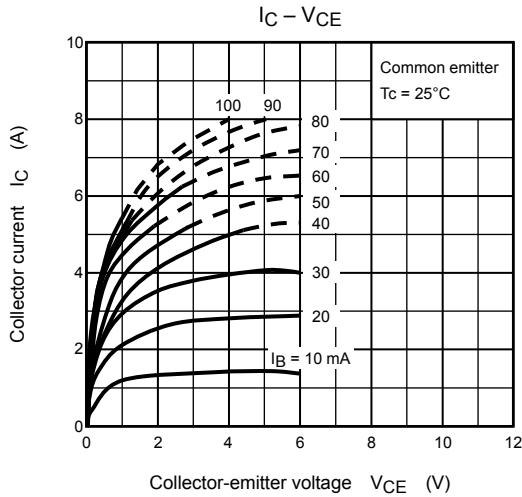
NPN Transistors

2SC3074

■ Classification of $h_{fe}(1)$

Type	2SC3074-O	2SC3074-A
Range	70-140	120-240

■ Typical Characteristics



NPN Transistors

2SC3074

■ Typical Characteristics

