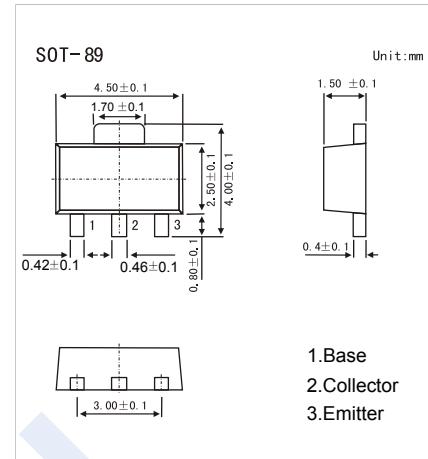


NPN Transistors

2SC5209

■ Features

- High h_{FE} : $h_{FE}=600$ to 1800
- High breakdown voltage
- Small package for mounting
- Complementary to 2SA1944

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

Parameter	Symbol	Rating	Unit
Collector - Base Voltage	V_{CB0}	50	V
Collector - Emitter Voltage	V_{CE0}	50	
Emitter - Base Voltage	V_{EB0}	6	
Collector Current - Continuous	I_C	1	A
Collector Current - Pulse	I_{CP}	2	
Collector Power Dissipation	P_C	500	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_{CB0}	$I_C = 100 \mu\text{A}$, $I_E = 0$	50			V
Collector- emitter breakdown voltage	V_{CE0}	$I_C = 1 \text{ mA}$, $R_{BE} = \infty$	50			
Emitter - base breakdown voltage	V_{EB0}	$I_E = 100 \mu\text{A}$, $I_C = 0$	6			
Collector-base cut-off current	I_{CBO}	$V_{CB} = 40\text{V}$, $I_E = 0$			0.1	μA
Emitter cut-off current	I_{EBO}	$V_{EB} = 5\text{V}$, $I_C = 0$			0.1	
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C = 500\text{mA}$, $I_B = 10\text{mA}$		0.15	0.5	V
Base - emitter saturation voltage	$V_{BE(sat)}$	$I_C = 500\text{mA}$, $I_B = 10\text{mA}$			1.2	
DC current gain	h_{FE}	$V_{CE} = 6\text{V}$, $I_C = 100\text{mA}$	600		1800	
Collector output capacitance	C_{ob}	$V_{CB} = 10\text{V}$, $I_E = 0$, $f = 1\text{MHz}$		12		pF
Transition frequency	f_T	$V_{CE} = 10\text{V}$, $I_E = -10\text{mA}$		130		MHz

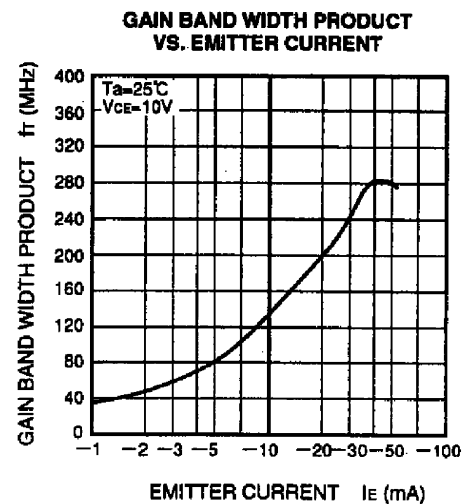
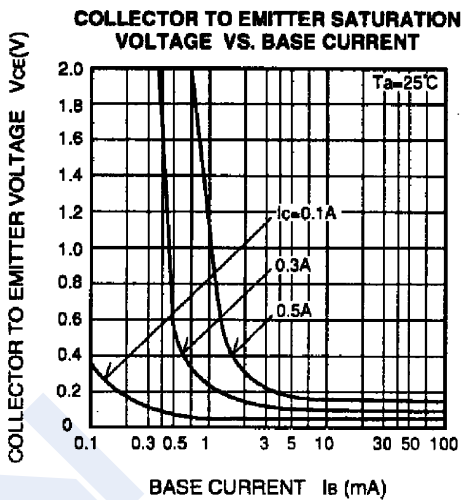
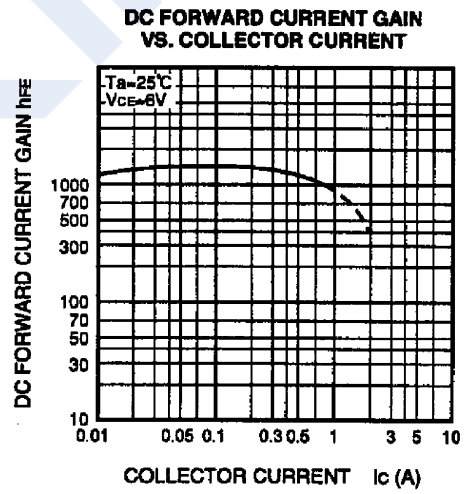
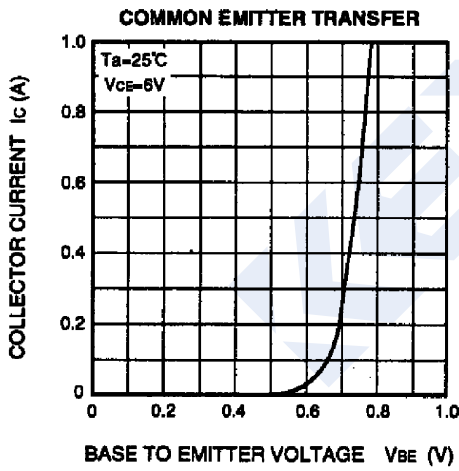
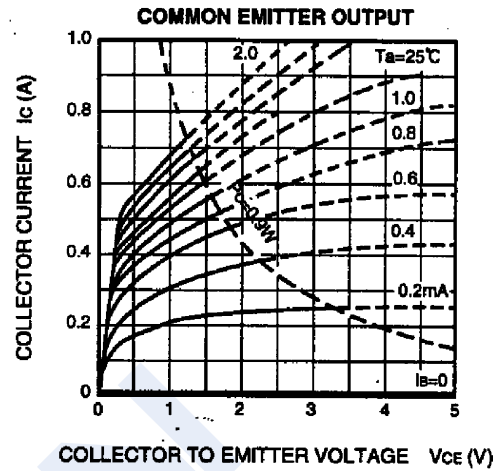
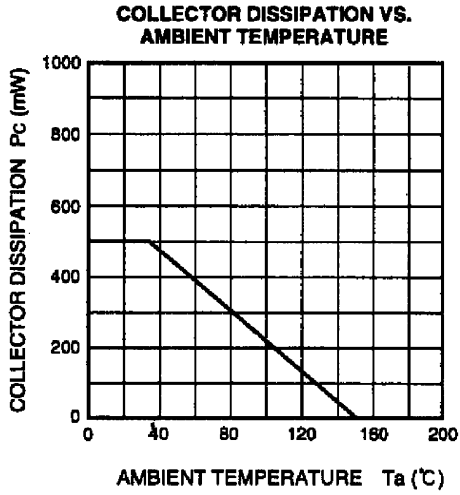
■ Classification of h_{FE}

Type	2SC5209- H	2SC5209- J
Range	600-1200	900-1800
Marking	RH	RJ

NPN Transistors

2SC5209

■ Typical Characteristics



NPN Transistors

2SC5209

■ Typical Characteristics

