

NPN Transistors

2SC5214

■ Features

- High $f_T=100\text{MHz}$ typ
- Excellent linearity of DC forward current gain
- High collector current $I_{CP}=1.5\text{A}$
- Complementary to 2SA1947

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

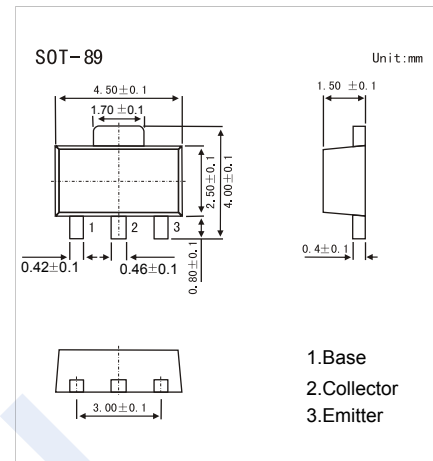
Parameter	Symbol	Rating	Unit
Collector - Base Voltage	V_{CB0}	30	V
Collector - Emitter Voltage	V_{CE0}	25	
Emitter - Base Voltage	V_{EB0}	4	
Collector Current - Continuous	I_C	1	A
Collector Current - Pulse	I_{CP}	1.5	
Collector Power Dissipation	P_C	500	mW
Junction Temperature	T_J	150	$^\circ\text{C}$
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}	$I_C = 100\ \mu\text{A}$, $I_E = 0$	30			V
Collector- emitter breakdown voltage	V_{CE0}	$I_C = 1\ \text{mA}$, $R_{BE} = \infty$	25			
Emitter - base breakdown voltage	V_{EB0}	$I_E = 100\ \mu\text{A}$, $I_C = 0$	4			
Collector-base cut-off current	I_{CB0}	$V_{CB} = 25\text{V}$, $I_E = 0$			1	μA
Emitter cut-off current	I_{EB0}	$V_{EB} = 4\text{V}$, $I_C = 0$			1	
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C = 500\text{mA}$, $I_B = 25\text{mA}$			0.5	V
Base - emitter saturation voltage	$V_{BE(sat)}$	$I_C = 500\text{mA}$, $I_B = 25\text{mA}$			1.2	
DC current gain	h_{FE}	$V_{CE} = 1\text{V}$, $I_C = 500\text{mA}$	55		300	
Transition frequency	f_T	$V_{CE} = 6\text{V}$, $I_E = -10\text{mA}$		100		MHz

■ Classification of h_{FE}

Type	2SC5214- C	2SC5214- D	2SC5214- E
Range	55-110	90-180	150-300
Marking	WC	WD	WE



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■ Typical Characteristics

