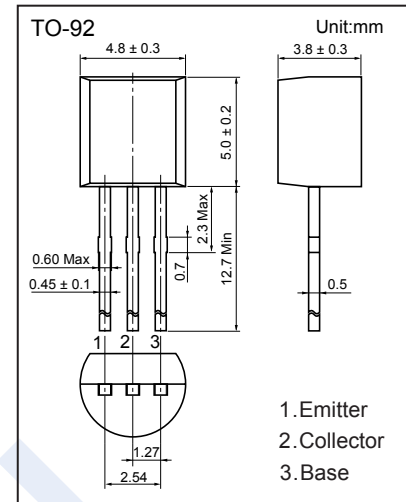


NPN Transistors

2SC1923

■ Features

- Collector Current Capability $I_C=20\text{mA}$
- Collector Emitter Voltage $V_{CEO}=30\text{V}$
- General Purpose Switching Application

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

Parameter	Symbol	Rating	Unit
Collector - Base Voltage	V_{CBO}	40	V
Collector - Emitter Voltage	V_{CEO}	30	
Emitter - Base Voltage	V_{EBO}	4	
Collector Current - Continuous	I_C	20	mA
Collector Power Dissipation	P_C	100	mW
Thermal Resistance From Junction To Ambient	$R_{\theta JA}$	1250	$^\circ\text{C/W}$
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}	$I_C = 100\ \mu\text{A}, I_E = 0$	40			V
Collector- emitter breakdown voltage	V_{CEO}	$I_C = 1\ \text{mA}, I_B = 0$	30			
Emitter - base breakdown voltage	V_{EBO}	$I_E = 100\ \mu\text{A}, I_C = 0$	4			
Collector-base cut-off current	I_{CBO}	$V_{CB} = 18\ \text{V}, I_E = 0$			0.5	μA
Emitter cut-off current	I_{EBO}	$V_{EB} = 4\ \text{V}, I_C = 0$			0.5	
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C = 20\ \text{mA}, I_B = 2\ \text{mA}$			0.6	V
Base - emitter saturation voltage	$V_{BE(sat)}$	$I_C = 20\ \text{mA}, I_B = 2\ \text{mA}$			1.2	
DC current gain	h_{FE}	$V_{CE} = 6\ \text{V}, I_C = 1\ \text{mA}$	40		200	
Transition frequency	f_T	$V_{CE} = 6\ \text{V}, I_C = 1\ \text{mA}$		550		MHz

■ Classification of h_{FE}

Type	2SC1923-R	2SC1923-O	2SC1923-Y
Range	40-80	70-140	100-200

NPN Transistors

2SC1923

■ Typical Characteristics

