

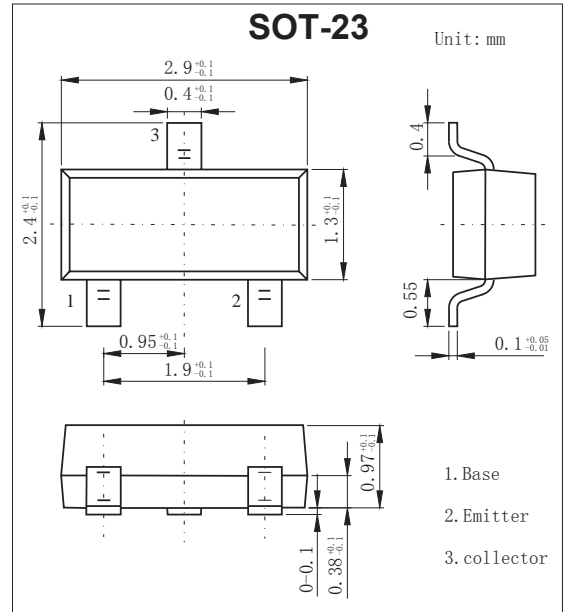
SOT-23 Plastic-Encapsulate Transistors

Features

- Collector Current Capability $I_c=20\text{mA}$
- Collector Emitter Voltage $V_{CE0}=30\text{V}$

MECHANICAL DATA

- Case style:SOT-23 molded plastic
- Mounting position:any



MAXIMUM RATINGS AND CHARACTERISTICS

@ 25°C Ambient Temperature (unless otherwise noted)

Parameter	Symbol	Rating	Unit
Collector - Base Voltage	V_{CB0}	40	V
Collector - Emitter Voltage	V_{CE0}	30	
Emitter - Base Voltage	V_{EB0}	4	
Collector Current - Continuous	I_c	20	mA
Collector Power Dissipation	P_c	100	mW
Thermal Resistance from Junction to Ambient	$R_{\theta JA}$	1000	°C/W
Junction Temperature	T_J	125	°C
Storage Temperature Range	T_{stg}	-55 to 125	

PACKAGE INFORMATION

Device	Package	Shipping
2SC2714	SOT-23	3000/Tape&Reel

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector- base breakdown voltage	V_{CB0}	$I_c=100\mu\text{A}, I_E=0$	40			V
Collector- emitter breakdown voltage	V_{CE0}	$I_c=1\text{mA}, I_B=0$	30			
Emitter - base breakdown voltage	V_{EB0}	$I_E=100\mu\text{A}, I_c=0$	4			
Collector-base cut-off current	I_{CB0}	$V_{CB}=18\text{V}, I_E=0$			0.5	uA
Emitter cut-off current	I_{EB0}	$V_{EB}=4\text{V}, I_c=0$			0.5	
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_c=100\text{mA}, I_B=10\text{mA}$			0.4	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}	$V_{CE}=6\text{V}, I_c=1\text{mA}$	40		200	
Noise Figure	NF	$V_{CE}=6\text{V}, I_E=-1\text{mA}, f=100\text{MHz}$		2.5	5	dB
Reverse Transfer capacitance	C_{re}	$V_{CB}=6\text{V}, I_E=0, f=1\text{MHz}$		0.7		pF
Transition frequency	f_T	$V_{CE}=6\text{V}, I_c=1\text{mA}$		550		MHz

Classification of h_{fe}

Type	2SC2714-R	2SC2714-O	2SC2714-Y
Range	40-80	70-140	100-200
Marking	QR	QO	QY

RATINGS AND CHARACTERISTIC CURVES

■ Typical Characteristics

