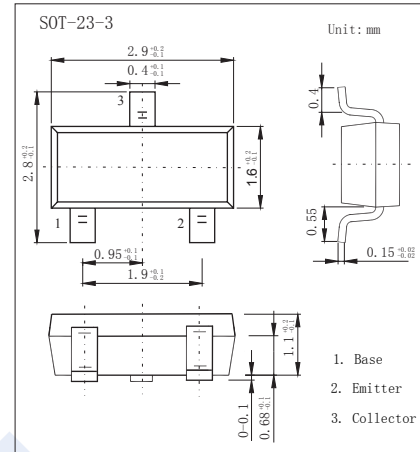


## NPN Transistors

### 2SC2859-HF

#### ■ Features

- Excellent hFE Linearity:  
hFE(2)=25(min) (VCE=6V, IC=400mA)
- Complementary to 2SA1182-HF
- Pb-Free Package May be Available. The G-Suffix Denotes a Pb-Free Lead Finish



#### ■ Absolute Maximum Ratings Ta = 25°C

Parameter	Symbol	Rating	Unit
Collector - Base Voltage	V <sub>CB0</sub>	35	V
Collector - Emitter Voltage	V <sub>CEO</sub>	30	
Emitter - Base Voltage	V <sub>EBO</sub>	5	
Collector Current - Continuous	I <sub>C</sub>	500	mA
Base Current	I <sub>B</sub>	50	
Collector Power Dissipation	P <sub>C</sub>	150	mW
Junction Temperature	T <sub>J</sub>	125	°C
Storage Temperature Range	T <sub>stg</sub>	-55 to 125	

#### ■ Electrical Characteristics Ta = 25°C

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector- base breakdown voltage	V <sub>CB0</sub>	I <sub>C</sub> = 100 μA, I <sub>E</sub> = 0	35			V
Collector- emitter breakdown voltage	V <sub>CEO</sub>	I <sub>C</sub> = 1 mA, I <sub>B</sub> = 0	30			
Emitter - base breakdown voltage	V <sub>EBO</sub>	I <sub>E</sub> = 100 μA, I <sub>C</sub> = 0	5			
Collector-base cut-off current	I <sub>CB0</sub>	V <sub>CB</sub> = 35V, I <sub>E</sub> = 0			0.1	μA
Emitter cut-off current	I <sub>EBO</sub>	V <sub>EB</sub> = 5V, I <sub>C</sub> =0			0.1	
Collector-emitter saturation voltage	V <sub>CE(sat)</sub>	I <sub>C</sub> =100 mA, I <sub>B</sub> =10mA		0.1	0.25	V
Base - emitter saturation voltage	V <sub>BE(sat)</sub>	I <sub>C</sub> =100 mA, I <sub>B</sub> =10mA			1.2	
Base - emitter voltage	V <sub>BE</sub>	V <sub>CE</sub> = 1V, I <sub>C</sub> = 100mA		0.8	1	
DC current gain	hFE(1)	V <sub>CE</sub> = 1V, I <sub>C</sub> = 100mA	70		400	
		V <sub>CE</sub> = 6V, I <sub>C</sub> = 400mA	O	25		
			Y	40		
		G	70			
Collector output capacitance	C <sub>ob</sub>	V <sub>CB</sub> = 6V, I <sub>E</sub> = 0, f=1MHz		7		pF
Transition frequency	f <sub>T</sub>	V <sub>CE</sub> = 6V, I <sub>C</sub> = 20mA		300		MHz

#### ■ Classification of hfe(1)

Type	2SC2859-O-HF	2SC2859-Y-HF	2SC2859-G-HF
Range	70-140	120-240	200-400
Marking	WO <sub>F</sub>	WY <sub>F</sub>	WG <sub>F</sub>

### NPN Transistors

### 2SC2859-HF

■ Typical Characteristics

