

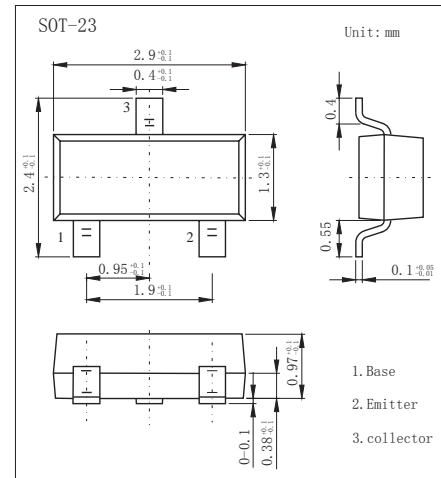
## SOT-23 Plastic-Encapsulate Transistors

### Features

- High voltage:  $V_{CE0} = -50\text{ V}$
- (min) Small package
- Complementary to 2SC3325
- PNP Transistors

### 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	$V_{CB0}$	-50	V
Collector-emitter voltage	$V_{CE0}$	-50	V
Emitter-base voltage	$V_{EB0}$	-5	V
Collector current	$I_C$	-500	mA
Base current	$I_B$	-50	mA
Collector power dissipation	$P_C$	200	mW
Junction temperature	$T_j$	150	°C
Storage temperature	$T_{stg}$	-55 to +150	°C

### PACKAGE INFORMATION

Device	Package	Shipping
2SA1313	SOT-23	3000/Tape&Reel

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector- base breakdown voltage	$V_{CB0}$	$I_C = -100\mu\text{A}, I_E = 0$	-50			V
Collector- emitter breakdown voltage	$V_{CE0}$	$I_C = -1\text{ mA}, I_B = 0$	-50			
Emitter - base breakdown voltage	$V_{EB0}$	$I_E = -100\mu\text{A}, I_C = 0$	-5			
Collector-base cut-off current	$I_{CB0}$	$V_{CB} = -50\text{ V}, I_E = 0$			-0.1	uA
Emitter cut-off current	$I_{EB0}$	$V_{EB} = -5\text{ V}, I_C = 0$			-0.1	
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C = -100\text{ mA}, I_B = -10\text{ mA}$			-0.25	V
Base-emitter saturation voltage	$V_{CB(sat)}$	$I_C = -100\text{ mA}, I_B = -10\text{ mA}$			-1.2	
Base - emitter voltage	$V_{BE}$	$V_{CE} = -1\text{ V}, I_C = -100\text{ mA}$			-1	
DC current gain	$h_{FE(1)}$	$V_{CE} = -1\text{ V}, I_C = -100\text{ mA}$	70		240	
	$h_{FE(2)}$	$V_{CE} = -1\text{ V}, I_C = -800\text{ mA}$	25			
			40			
Collector output capacitance	$C_{ob}$	$V_{CB} = -6\text{ V}, I_E = 0, f = 1\text{ MHz}$		13		pF
Transition frequency	$f_T$	$V_{CE} = -6\text{ V}, I_C = -20\text{ mA}$		200		MHz

### Classification of $h_{fe(1)}$

Type	2SA1313-O	2SA1313-Y
Range	70-140	120-240
Marking	ACO	ACY

■ Typical Characteristics

