

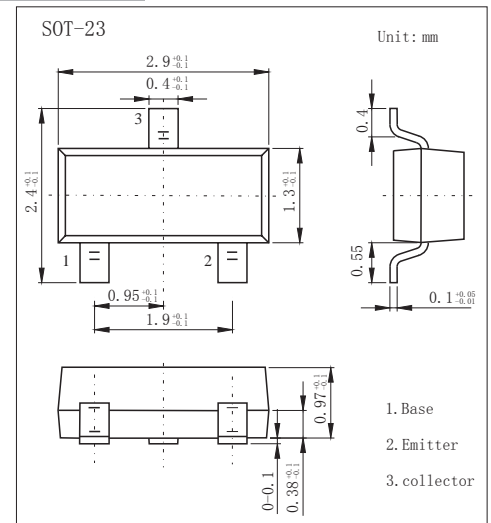
## SOT-23 Plastic-Encapsulate Transistors

### Features

- Collector Current Capability  $I_C = -0.8A$
- Collector Emitter Voltage  $V_{CEO} = -30V$
- Low Frequency Power Amplifier Application
- Power Switching Applications
- Complementary to 2SC3265
- 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	$V_{CBO}$	-35	V
Collector - Emitter Voltage	$V_{CEO}$	-30	
Emitter - Base Voltage	$V_{EBO}$	-5	
Collector Current - Continuous	$I_C$	-800	mA
Collector Power Dissipation	$P_C$	200	mW
Thermal Resistance From Junction To Ambient	$R_{\theta JA}$	625	°C/W
Junction Temperature	$T_J$	150	°C
Storage Temperature range	$T_{stg}$	-55 to 150	

### PACKAGE INFORMATION

Device	Package	Shipping
2SA1298	SOT-23	3000/Tape&Reel

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector- base breakdown voltage	$V_{CBO}$	$I_C = -1mA, I_E = 0$	-35			V
Collector- emitter breakdown voltage	$V_{CEO}$	$I_C = -10 mA, I_B = 0$	-30			
Emitter - base breakdown voltage	$V_{EBO}$	$I_E = -1mA, I_C = 0$	-5			
Collector-base cut-off current	$I_{CBO}$	$V_{CB} = -30 V, I_E = 0$			-0.1	uA
Emitter cut-off current	$I_{EBO}$	$V_{EB} = -5V, I_C = 0$			-0.1	
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C = -500 mA, I_B = -20mA$			-0.4	V
Base-emitter saturation voltage	$V_{BE(sat)}$	$I_C = -500 mA, I_B = -20mA$			-1.2	
Base - emitter voltage	$V_{BE}$	$V_{CE} = -1V, I_C = -10 mA$			-0.8	
DC current gain	$h_{FE(1)}$	$V_{CE} = -1V, I_C = -100mA$	100		320	
	$h_{FE(2)}$	$V_{CE} = -1V, I_C = -800mA$	40			
Collector output capacitance	$C_{ob}$	$V_{CB} = -6V, I_E = 0, f = 1MHz$		13		pF
Transition frequency	$f_T$	$V_{CE} = -5V, I_C = -10mA$		120		MHz

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

Type	2SA1298-O	2SA1298-Y
Range	100-200	160-320
Marking	IO	IY

# RATINGS AND CHARACTERISTIC CURVES

## ■ Typical Characteristics

