

SOT-89 Plastic-Encapsulate Transistors

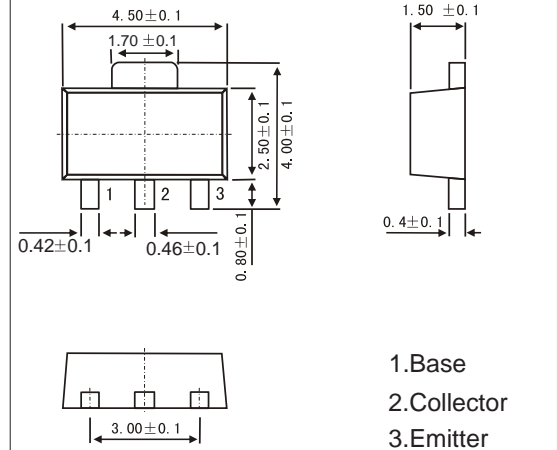
Features

- Suitable for output stage of 3 watts amplifier
- Small flat package
- $PC = 1.0$ to 2.0 W (mounted on a ceramic substrate)
- Complementary to 2SA1203
- NPN Transistors

MECHANICAL DATA

- Case style: SOT-89 molded plastic
- Mounting position: any

SOT-89



MAXIMUM RATINGS AND CHARACTERISTICS

@ 25°C Ambient Temperature (unless otherwise noted)

Parameter	Symbol	Rating	Unit
Collector - Base Voltage	V_{CB0}	30	V
Collector - Emitter Voltage	V_{CE0}	30	
Emitter - Base Voltage	V_{EB0}	5	
Collector Current - Continuous	I_C	1.5	A
Base Current	I_B	0.3	
Collector Power Dissipation (Note.1)	P_C	500 1000	mW
Junction Temperature	T_J	150	
Storage Temperature Range	T_{stg}	-55 to 150	

Note.1: Mounted on a ceramic substrate ($250\text{ mm}^2 \times 0.8\text{ t}$)

PACKAGE INFORMATION

Device	Package	Shipping
2SC2883	SOT-89	1000/Tape&Reel

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector- base breakdown voltage	V_{CB0}	$I_C = 1\text{ mA}, I_E = 0$	30			V
Collector- emitter breakdown voltage	V_{CE0}	$I_C = 10\text{ mA}, I_B = 0$	30			
Emitter - base breakdown voltage	V_{EB0}	$I_E = 1\text{ mA}, I_C = 0$	5			
Collector-base cut-off current	I_{CB0}	$V_{CB} = 30\text{ V}, I_E = 0$			0.1	uA
Emitter cut-off current	I_{EB0}	$V_{EB} = 5\text{ V}, I_C = 0$			0.1	
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C = 1.5\text{ A}, I_B = 30\text{ mA}$			2	V
Base - emitter saturation voltage	$V_{BE(sat)}$	$I_C = 1.5\text{ A}, I_B = 30\text{ mA}$			1.2	
Base - emitter voltage	V_{BE}	$V_{CE} = 2\text{ V}, I_C = 500\text{ mA}$			1	
DC current gain	h_{FE}	$V_{CE} = 2\text{ V}, I_C = 500\text{ mA}$	100		320	
Collector output capacitance	C_{ob}	$V_{CB} = 10\text{ V}, I_E = 0, f = 1\text{ MHz}$			40	pF
Transition frequency	f_T	$V_{CE} = 2\text{ V}, I_C = 500\text{ mA}$		120		MHz

Classification of h_{FE}

Type	2SC2883-O	2SC2883-Y
Range	100-200	160-320
Marking	GO*	GY*



RATINGS AND CHARACTERISTIC CURVES

■ Typical Characteristics

