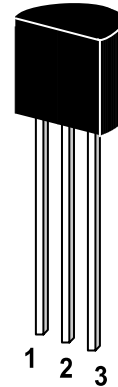


# ST 2SC3876

**NPN Silicon Epitaxial Planar Transistor**  
for switching and AF amplifier applications.

The transistor is subdivided into two groups, O and Y and according to its DC current gain.

On special request, these transistors can be manufactured in different pin configurations.

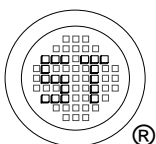


1. Emitter 2. Collector 3. Base

TO-92 Plastic Package  
Weight approx. 0.19g

## Absolute Maximum Ratings ( $T_a = 25^\circ\text{C}$ )

	Symbol	Value	Unit
Collector Base Voltage	$V_{CBO}$	35	V
Collector Emitter Voltage	$V_{CEO}$	30	V
Emitter Base Voltage	$V_{EBO}$	5	V
Collector Current	$I_C$	500	mA
Base Current	$I_B$	50	mA
Power Dissipation	$P_{tot}$	150	mW
Junction Temperature	$T_j$	125	$^\circ\text{C}$
Storage Temperature Range	$T_S$	-55 to +125	$^\circ\text{C}$



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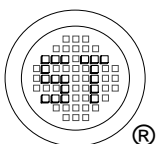


Dated : 07/12/2002

# ST 2SC3876

## Characteristics at $T_{amb}=25\text{ }^{\circ}\text{C}$

	Symbol	Min.	Typ.	Max.	Unit	
DC Current Gain at $V_{CE}=1\text{V}$ , $I_C=100\text{mA}$	Current Gain Group O Y	$h_{FE}$	70	-	140	-
		$h_{FE}$	120	-	240	-
		$h_{FE}$	25	-	-	-
at $V_{CE}=6\text{V}$ , $I_C=400\text{mA}$						
Collector Cutoff Current at $V_{CB}=35\text{V}$	$I_{CBO}$	-	-	0.1	$\mu\text{A}$	
Emitter Cutoff Current at $V_{EB}=5\text{V}$	$I_{EBO}$	-	-	0.1	$\mu\text{A}$	
Collector Emitter Saturation Voltage at $I_C=100\text{mA}$ , $I_B=10\text{mA}$	$V_{CE(sat)}$	-	0.1	0.25	V	
Transition Frequency at $V_{CE}=6\text{V}$ , $I_C=20\text{mA}$	$f_T$	-	300	-	MHz	
Base Emitter Voltage at $I_C=100\text{mA}$ , $V_{CE}=1\text{V}$	$V_{BE}$	-	0.8	1	V	
Collector Output Capacitance at $V_{CB}=6\text{V}$ , $f=1\text{MHz}$	$C_{OB}$	-	7	-	pF	



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ISO/TS 16949 : 2002  
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ISO 14001:2004  
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ISO 9001:2000  
Certificate No. 0506098

Dated : 07/12/2002