

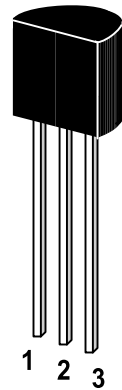
# ST 2SD1303

NPN Silicon Epitaxial Planar Transistor  
for audio muting application.

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

## Features

- High emitter-base voltage  $V_{EBO}=7.5V(\text{min})^*$
- High reverse  $h_{FE}$   
reverse  $h_{FE}=20(\text{min})$  ( $V_{CE}=2V$ ,  $I_C=4mA$ )
- Low on resistance  
 $R_{on}=0.6\Omega$  (Typ.) ( $I_B=1mA$ )

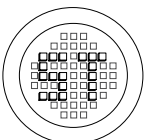


1. Emitter 2. Collector 3. Base  
TO-92 Plastic Package  
Weight approx. 0.19g

Absolute Maximum Ratings ( $T_a = 25^\circ C$ )

	Symbol	Value	Unit
Collector Base Voltage	$V_{CBO}$	25	V
Collector Emitter Voltage	$V_{CEO}$	16	V
Emitter Base Voltage	$V_{EBO}$	7.5*	V
Collector Current	$I_C$	300	mA
Base Current	$I_B$	30	mA
Power Dissipation	$P_{tot}$	400	mW
Junction Temperature	$T_j$	125	$^\circ C$
Storage Temperature Range	$T_s$	-55 to +125	$^\circ C$

G S P FORM A IS AVAILABLE



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РАДИОТЕХ-ТРЕЙД

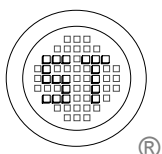
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## Characteristics at $T_{amb}=25\text{ }^{\circ}\text{C}$

	Symbol	Min.	Typ.	Max.	Unit
DC Current Gain at $V_{CE}=2\text{V}$ , $I_C=4\text{mA}$ (for)	$h_{FE}$	200	-	800	-
at $V_{CE}=2\text{V}$ , $I_C=4\text{mA}$ (rev)	$h_{FE}$	20	-	-	-
Collector Cutoff Current at $V_{CB}=25\text{V}$	$I_{CBO}$	-	-	0.1	$\mu\text{A}$
Emitter Cutoff Current at $V_{EB}=7.5\text{V}$	$I_{EBO}$	-	-	0.1	$\mu\text{A}$
Collector Emitter Saturation Voltage at $I_C=100\text{mA}$ , $I_B=10\text{mA}$	$V_{CE(sat)}$	-	-	0.25	V
Base Emitter Saturation Voltage at $I_C=100\text{mA}$ , $I_B=10\text{mA}$	$V_{BE(sat)}$	-	-	1	V
Transition Frequency at $V_{CE}=10\text{V}$ , $I_E=1\text{mA}$	$f_T$	-	60	-	MHz
Collector Output Capacitance at $V_{CB}=10\text{V}$ , $f=1\text{MHz}$	$C_{OB}$	-	10	-	pF
On Resistance at $I_B=1\text{mA}$ , $f=1\text{KHz}$ , $V_{in}=0.3\text{V}$	$R_{on}$	-	0.6	-	$\Omega$

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**SEMTECH ELECTRONICS LTD.**

(Subsidiary of Semtech International Holdings Limited, a company listed on the Hong Kong Stock Exchange, Stock Code: 724)



ISO/TS 16949 : 2002  
Certificate No. 05103



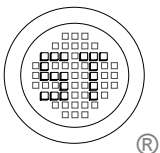
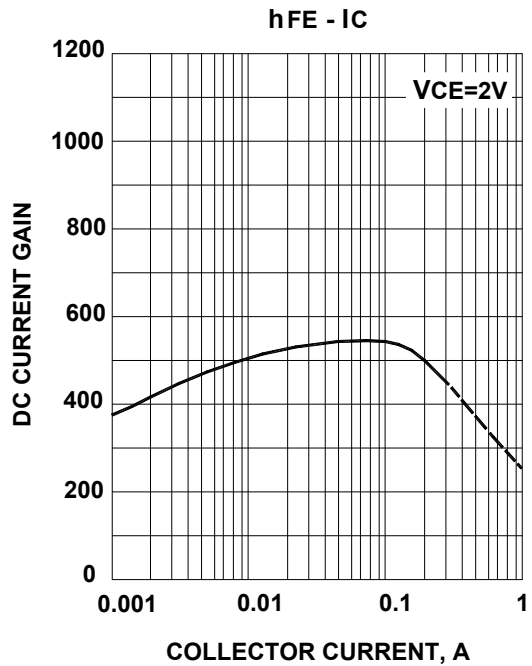
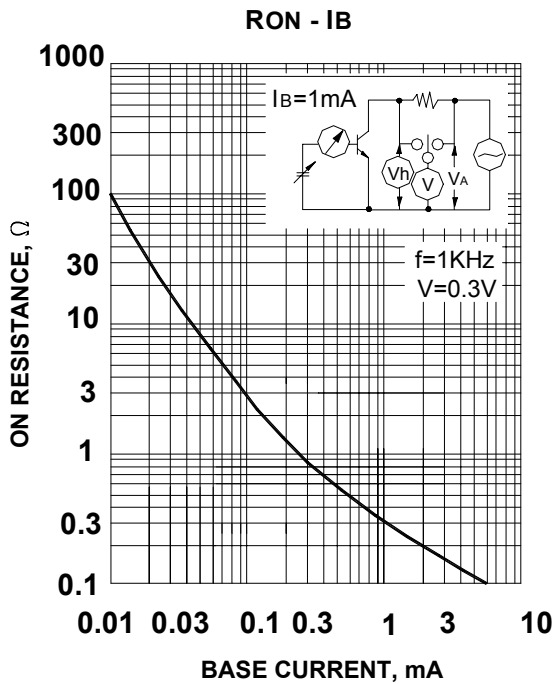
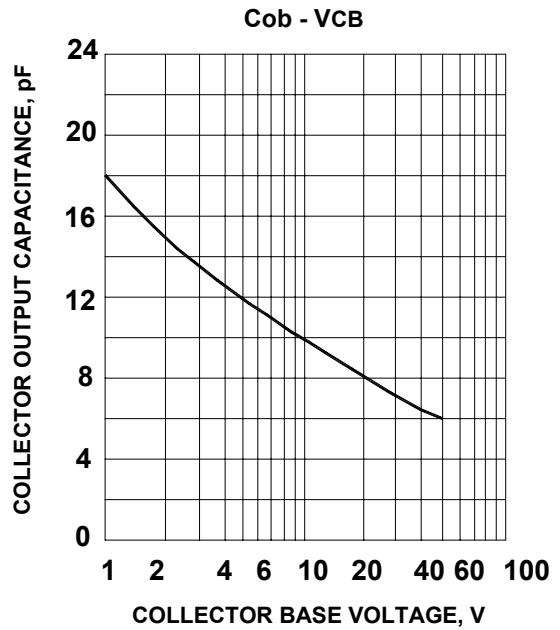
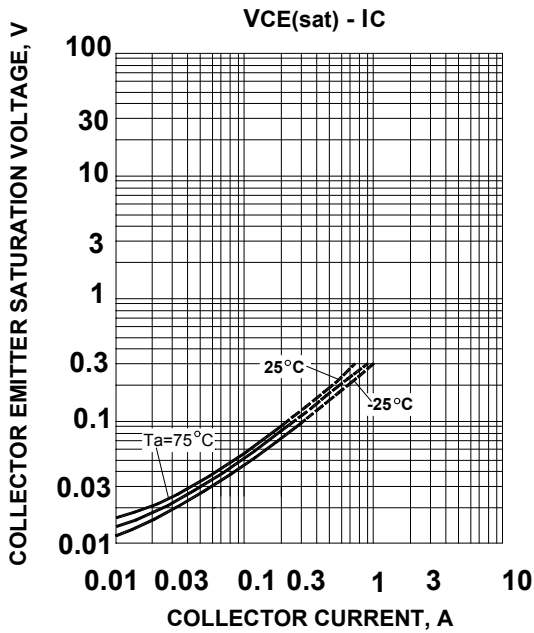
ISO 14001  
Certificate No. 7116



ISO 9001 : 2000  
Certificate No. 555-199-A/02-2nd

Dated : 09/04/2003

# ST 2SD1303



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