

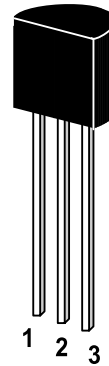
ST 2SD1303

NPN Silicon Epitaxial Planar Transistor
for audio muting application.

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

Features

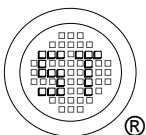
- High emitter-base voltage $V_{EBO}=7.5V(\text{min})^*$
- High reverse h_{FE}
reverse $h_{FE}=20(\text{min})$ ($V_{CE}=2V$, $I_C=4mA$)
- Low on resistance
 $R_{on}=0.6\Omega$ (Typ.) ($I_B=1mA$)



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

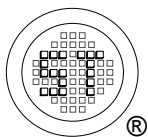
Absolute Maximum Ratings ($T_a = 25^\circ\text{C}$)

	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	$^\circ\text{C}$
Storage Temperature Range	T_s	-55 to +125	$^\circ\text{C}$



ST 2SD1303**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	μA
Emitter Cutoff Current					
at $V_{EB}=7.5\text{V}$	I_{EBO}	-	-	0.1	μA
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	-	Ω

**SEMTECH ELECTRONICS LTD.**

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



ISO/TS 16949 : 2002 Certificate No. 05103
 ISO 14001:2004 Certificate No. 7116
 ISO 9001:2000 Certificate No. 0508098

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