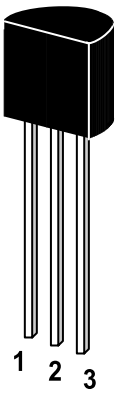
ST 2SD1303

NPN Silicon Epitaxial Planar Transistor
for audio muting application.

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

Features

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

Absolute Maximum Ratings (T_a = 25 °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	°C
Storage Temperature Range	T_S	-55 to +125	°C

SEMTECH ELECTRONICS LTD.
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ISO/TS 16949 : 2002 Certificate No. 05103
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Dated : 09/04/2003

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Characteristics at T_{amb}=25 °C

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

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