

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

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

Parameter	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	150	$^\circ\text{C}$
Storage Temperature Range	T_{stg}	- 55 to + 150	$^\circ\text{C}$

Characteristics at $T_a = 25^\circ\text{C}$

Parameter	Symbol	Min.	Typ.	Max.	Unit
DC Current Gain at $V_{CE} = 2\text{ V}$, $I_C = 4\text{ mA}$ (for) at $V_{CE} = 2\text{ V}$, $I_C = 4\text{ mA}$ (rev)	h_{FE} h_{FE}	200 20	- -	800 -	- -
Collector Base Cutoff Current at $V_{CB} = 25\text{ V}$	I_{CBO}	-	-	0.1	μA
Emitter Base 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



