

NTE2689 Silicon NPN Transistor Audio Power Amp SOT-23 Type Package

Description:

The NTE2689 is a silicon NPN transistor in an SOT-23 surface mount type package designed for use in audio power amplifier applications.

Features:

- High DC Current Gain

Absolute Maximum Ratings:

Collector-Base Voltage, V_{CBO}	35V
Collector-Emitter Voltage, V_{CEO}	30V
Emitter-Base Voltage, V_{EBO}	5V
Collector Current, I_C	800mA
Collector Dissipation (Note 1), P_C	350mW
Operating Junction Temperature, T_J	+150°C
Storage Temperature Range, T_{stg}	-55° to +150°C

Note 1. Package mounted on 99.5% alumina 10 x 8 x 0.6mm.

Electrical Characteristics: ($T_A = +25^\circ\text{C}$ unless otherwise specified)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector-Base Breakdown Voltage	BV_{CBO}	$I_C = 100^\circ\text{A}$, $I_E = 0$	35	–	–	V
Collector-Emitter Breakdown Voltage	BV_{CEO}	$I_C = 1\text{mA}$, $I_B = 0$	30	–	–	V
Emitter-Base Breakdown Voltage	BV_{EBO}	$I_E = 10^\circ\text{A}$, $I_C = 0$	5	–	–	V
Collector Cut-Off Current	I_{CBO}	$V_{CB} = 35\text{V}$, $I_E = 0$	–	–	0.1	°A
Emitter Cut-Off Current	I_{EBO}	$V_{EB} = 5\text{V}$, $I_C = 0$	–	–	0.1	°A
DC Current Gain	h_{FE}	$V_{CE} = 1\text{V}$, $I_C = 100\text{mA}$	160	–	320	
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C = 500\text{mA}$, $I_B = 50\text{mA}$	–	–	0.5	V
Transition Frequency	f_T	$V_{CE} = 5\text{V}$, $I_C = 10\text{mA}$	–	120	–	MHz
Collector Output Capacitance	C_{ob}	$V_{CB} = 10\text{V}$, $I_E = 0$, $f = 1\text{MHz}$	–	13	–	pF

