

NTE1235 Integrated Circuit Squelch Amp

Absolute Maximum Ratings: ($T_A = +25^\circ\text{C}$ unless otherwise specified)

Collector–Base Voltage, V_{CBO}	20V
Collector–Emitter Voltage, V_{CEO}	17V
Collector–Substrate Voltage, V_{CIO}	20V
Emitter–Base Voltage, V_{EBO}	5V
Collector Current, I_C	20mA
Power Dissipation, P_D	300mW
Derate Above 25°C	3mW/ $^\circ\text{C}$
Supply Current, I_{CC}	30mA
Operating Temperature Range, T_{opr}	-30 to $+75^\circ\text{C}$
Storage Temperature Range, T_{stg}	-55° to $+125^\circ\text{C}$

Electrical Characteristics:

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector–Base Voltage	V_{CBO}	$I_C = 10\mu\text{A}$, $I_E = 0$	20	–	–	V
Collector–Emitter Voltage	V_{CEO}	$I_C = 0.1\text{mA}$, $I_B = 0$	17	–	–	V
Collector Substrate Voltage	V_{CIO}	$I_C = 10\mu\text{A}$, $I_{C1} = 0$	20	–	–	V
Emitter–Base Voltage	V_{EBO}	$I_E = 10\mu\text{A}$, $I_C = 0$	5	–	–	V
Collector Cutoff Current	I_{CBO}	$V_{CB} = 15\text{V}$, $I_E = 0$	–	–	0.5	μA
DC Current Gain	h_{FE}	$V_{CE} = 15\text{V}$, $I_E = 0$	70	–	400	–
Collector–Emitter Sat. Voltage	$V_{CE(sat)}$	$I_C = 10\text{mA}$, $I_B = 1\text{mA}$	–	–	0.5	V
Base–Emitter Sat. Voltage	$V_{BE(sat)}$	$I_C = 10\text{mA}$, $I_B = 1\text{mA}$	–	–	1	V
Output Capacitor Q_1	C_{CB}	$V_{CE} = 5\text{V}$, $f = 1\text{MHz}$	–	2.5	–	pF
Q_2			–	5.0	–	pF
Current Bandwidth Product	f_T	$V_{CE} = 5\text{V}$, $I_C = 1\text{mA}$	200	–	–	MHz
Noise Figure	NF	$V_{CE} = 5\text{V}$, $I_E = 1\text{mA}$, $R_g = 50\Omega$, $f = 1\text{MHz}$	–	6	–	dB
Forward Voltage	V_F	$I_F = 1\text{mA}$	1.2	–	1.4	V

Pin Connection Diagram

