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## NTE1235 Integrated Circuit Squelch Amp

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

Collector–Base Voltage, $V_{CB0}$ .....	20V
Collector–Emitter Voltage, $V_{CEO}$ .....	17V
Collector–Substrate Voltage, $V_{C10}$ .....	20V
Emitter–Base Voltage, $V_{EBO}$ .....	5V
Collector Current, $I_C$ .....	20mA
Power Dissipation, $P_D$ .....	300mW
Derate Above $25^\circ\text{C}$ .....	3mW/ $^\circ\text{C}$
Supply Current, $I_{CC}$ .....	30mA
Operating Temperature Range, $T_{opr}$ .....	$-30$ to $+75^\circ\text{C}$
Storage Temperature Range, $T_{stg}$ .....	$-55^\circ$ to $+125^\circ\text{C}$

**Electrical Characteristics:**

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector–Base Voltage	$V_{CB0}$	$I_C = 10\mu\text{A}, I_E = 0$	20	–	–	V
Collector–Emitter Voltage	$V_{CEO}$	$I_C = 0.1\text{mA}, I_B = 0$	17	–	–	V
Collector Substrate Voltage	$V_{C10}$	$I_C = 10\mu\text{A}, I_{C1} = 0$	20	–	–	V
Emitter–Base Voltage	$V_{EBO}$	$I_E = 10\mu\text{A}, I_C = 0$	5	–	–	V
Collector Cutoff Current	$I_{CB0}$	$V_{CB} = 15\text{V}, I_E = 0$	–	–	0.5	$\mu\text{A}$
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

