

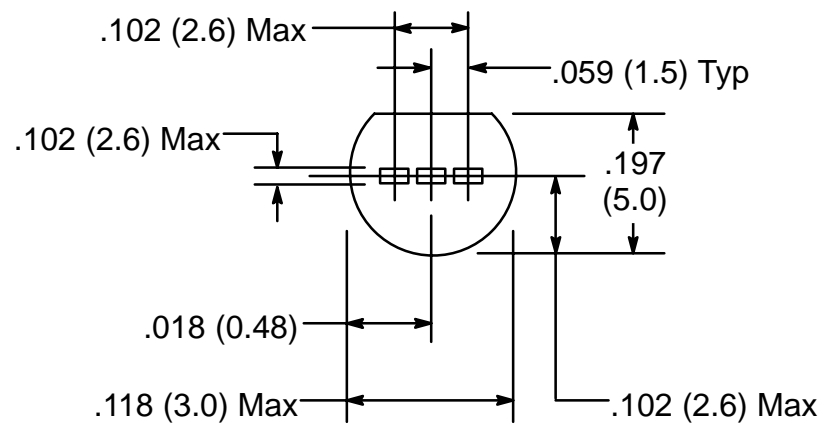
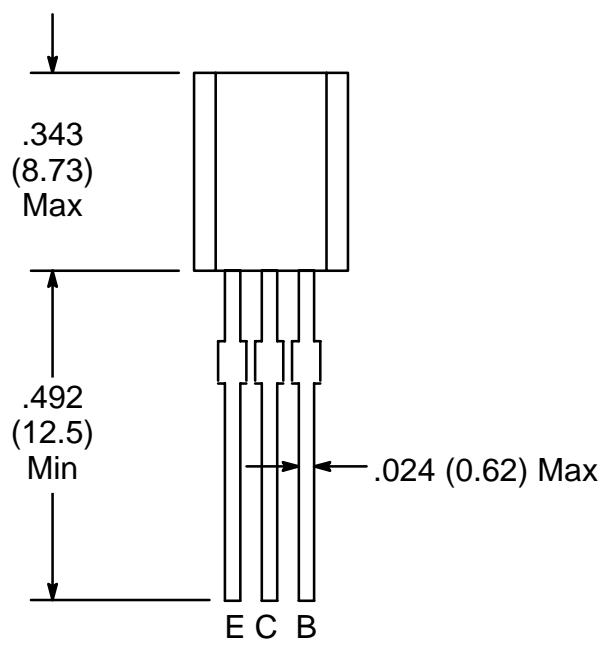
## NTE382 (NPN) & NTE383 (PNP) Silicon Complementary Transistors Audio Frequency Driver

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

|   |                |
|---|----------------|
| Collector–Base Voltage, $V_{CBO}$ .....     | 120V           |
| Collector–Emitter Voltage, $V_{CEO}$ .....  | 100V           |
| Emitter–Base Voltage, $V_{EBO}$ .....       | 5V             |
| Collector Current, $I_C$                    |                |
| Continuous .....                            | 1A             |
| Peak .....                                  | 2A             |
| Collector Power Dissipation, $P_C$ .....    | 900mW          |
| Operating Junction Temperature, $T_J$ ..... | +150°C         |
| Storage Temperature Range, $T_{stg}$ .....  | –55° to +150°C |

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

| Parameter                            | Symbol          | Test Conditions                                 | Min | Typ | Max | Unit          |
|--------------------------------------|-----------------|---|-----|-----|-----|---------------|
| Collector–Base Breakdown Voltage     | $V_{(BR)CBO}$   | $I_C = 10\mu\text{A}, I_E = 0$                  | 120 | –   | –   | V             |
| Collector–Emitter Breakdown Voltage  | $V_{(BR)CEO}$   | $I_C = 1\text{mA}, R_{BE} = \infty$             | 100 | –   | –   | V             |
| Emitter–Base Breakdown Voltage       | $V_{(BR)EBO}$   | $I_E = 10\mu\text{A}, I_C = 0$                  | 5   | –   | –   | V             |
| Collector Cutoff Current             | $I_{CBO}$       | $V_{CB} = 100\text{V}, I_E = 0$                 | –   | –   | 10  | $\mu\text{A}$ |
| DC Current Gain                      | h <sub>FE</sub> | $V_{CE} = 5\text{V}, I_C = 150\text{mA}$        | 160 | –   | 320 |               |
|                                      |                 | $V_{CE} = 5\text{V}, I_C = 500\text{mA}$        | 30  | –   | –   |               |
| Collector–Emitter Saturation Voltage | $V_{CE(sat)}$   | $I_C = 500\text{mA}, I_B = 50\text{mA}$         | –   | –   | 1.0 | V             |
| Base–Emitter Voltage                 | $V_{BE}$        | $V_{CE} = 5\text{V}, I_C = 150\text{mA}$        | –   | –   | 1.5 | V             |
| Current Gain–Bandwidth Product       | f <sub>T</sub>  | $V_{CE} = 5\text{V}, I_C = 150\text{mA}$        | –   | 140 | –   | MHz           |
| Capacitance                          | C <sub>ob</sub> | $V_{CB} = 10\text{V}, I_E = 0, f = 1\text{MHz}$ | –   | 20  | –   | pF            |



.236 (6.0) Dia Max

.102 (2.6) Max