



ELECTRONICS, INC.

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NTE1249 Integrated Circuit Balanced Modulator

Description:

The NTE1249 is a balanced modulator circuit in a 7-Lead SIP type package designed for use in SSB CB equipment.

Features:

- Low Operating Voltage
- High Carrier Suppression

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

| | |
|--|-------------------------------------|
| Supply Voltage, V_{CC} | 14.4V |
| Supply Current, I_{CC} | 15mA |
| Power Dissipation, P_D | 22mW |
| Operating Ambient Temperature Range, T_{opr} | -20° to $+70^\circ\text{C}$ |
| Storage Temperature Range, T_{stg} | -55° to $+125^\circ\text{C}$ |

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

| Parameter | Symbol | Test Conditions | Min | Typ | Max | Unit |
|--------------------------------|-------------|-----------------|-----|------|------|------|
| Total Circuit Current | I_{tot} | $V_6 = 12V$ | 6.5 | 9.5 | 12.5 | mA |
| Zener Voltage | V_{5-4} | | – | 6.15 | – | V |
| Signal Input Terminal Voltage | V_{1-4} | | – | 3.1 | – | V |
| Carrier Input Terminal Voltage | V_{3-4} | | – | 3.4 | – | V |
| Output Terminal Voltage | V_{7-4} | | – | 8.6 | – | V |
| BM AC Output Voltage | $V_{O(BM)}$ | $V_6 = 9V$ | –6 | –3 | 0 | dBm |
| Carrier Suppression | SC | | 40 | 50 | – | dB |

Pin Connection Diagram
(Front View)

