



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, $T_{opr}$ .....	$-20^\circ$ to $+70^\circ\text{C}$
Storage Temperature Range, $T_{stg}$ .....	$-55^\circ$ 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)

