

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}	$V_6 = 12\text{V}$	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	$V_{O(BM)}$	$V_6 = 9\text{V}$	—6	—3	0	dBm
Carrier Suppression	SC		40	50	—	dB

Pin Connection Diagram (Front View)

