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## NTE1268 Integrated Circuit DC Servo Circuit for VCR

**Description:**

The NTE1268 is an integrated circuit in a 28-Lead DIP type package designed for DC Servo Control Circuits in VCR's.

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

Supply Voltage ( $V_{5-24}$ ),  $V_{CC}$  ..... 14.4V  
 Power Dissipation,  $P_D$  ..... 640mW  
 Operating Temperature Range,  $T_{opr}$  .....  $-20^\circ$  to  $+70^\circ\text{C}$   
 Storage Temperature Range,  $T_{stg}$  .....  $-40^\circ$  to  $+150^\circ\text{C}$

**Electrical Characteristics:** ( $T_A = +25^\circ\text{C}$ ,  $V_{CC} = 12\text{V}$  unless otherwise specified)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Total Circuit Current	$I_{5-2}$		23	31	41	mA
Trapezoidal Reference Voltage	$V_{16-24}$		0.77	1.0	1.2	V
Output Voltage FF-II	$V_{23-24}$		10.0	10.9	-	V
Trapezoidal I	$V_{17-24}$		2.4	3.0	3.6	V
Trapezoidal II	$V_{17-24}$		11.0	11.9	-	V
S & H-I	$V_{12-24}$		-	240	500	mV
S & H-II	$V_{12-24}$		8.0	8.8	-	V
Gate-II	$V_{10-24}$		9.0	10.0	-	V
Input Sensitivity MM	$V_{22-24}$		3.5	-	-	$V_{O-P}$
Trapezoidal	$V_{15-24}$		4	-	-	$V_{O-P}$
Gate	$V_{7-24}$		3.5	-	-	$V_{O-P}$
S & H	$V_{is(14)}$	$f = 30\text{Hz}$ , $PW = 100\mu\text{s}$	1.5	-	-	$V_{O-P}$
DET-I	$V_{is(28)}$	400Hz, 1/2 Sampling Sine Wave, $t_d = 1\text{ms}$	50	-	-	$\text{mV}_{O-P}$
DET-II	$V_{is(2)}$		50	-	-	$\text{mV}_{O-P}$
FG	$V_{is(4)}$	$f = 400\text{Hz}$	100	-	-	$\text{mV}_{P-P}$
FF	$V_{is(25)}$	$f = 30\text{Hz}$ , Rectangular Wave	3	-	-	$V_{O-P}$

### Pin Connection Diagram

Ripple Filter	<b>1</b>	<b>28</b>	Detector 1 Input
Detector 2 Input	<b>2</b>	<b>27</b>	Detector Time Constant
Detector Time Constant	<b>3</b>	<b>26</b>	Jumper to Pin22 & Pin25
FG Amp Input	<b>4</b>	<b>25</b>	Jumper to Pin22 & Pin26
V <sub>CC</sub>	<b>5</b>	<b>24</b>	GND Return
Flip-Flop Output	<b>6</b>	<b>23</b>	To Head Switch
Gate Input	<b>7</b>	<b>22</b>	Jumper to Pin25 & Pin26
Gate Time Constant	<b>8</b>	<b>21</b>	Multi Time Constant
Gate Time Constant	<b>9</b>	<b>20</b>	Multi Time Constant
Motor Speed Signal Output	<b>10</b>	<b>19</b>	GND
Ripple Filter	<b>11</b>	<b>18</b>	S & H Signal Source
Motor Phase Signal Output	<b>12</b>	<b>17</b>	Bypass
Bypass	<b>13</b>	<b>16</b>	Resistive Constant
Timing Signal Input	<b>14</b>	<b>15</b>	Timing Reference Signal

