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## NTE1187 Integrated Circuit TV Video IF Detector

### Absolute Maximum Ratings:

Circuit Voltage,		
$V_5, V_6$ .....		15V
$V_7$ .....		3V <sub>P-P</sub>
Circuit Current,		
$I_6$ .....		20mA
$I_1$ .....		30mA
$I_4$ .....		15mA
Power Dissipation ( $T_A = +70^\circ\text{C}$ ), $P_d$ .....		275mW
Operating Temperature Range, $T_{opt}$ .....		-20° to +70°C
Storage Temperature Range, $T_{stg}$ .....		-40° to +125°C

### Electrical Characteristic: ( $V_{CC} = 12\text{V}$ , $T_A = +25^\circ\text{C} \pm 3^\circ\text{C}$ unless otherwise specified)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Circuit Current ( $I_5$ & $I_6$ )	$I_{CC}$	$R_4 = 560\Omega$	16	21	27	mA
Video Output Voltage	$V_4$	$R_4 = 560\Omega$	3.5	4.3	5.0	V
AFC Output Voltage	$V_1$	$f = 58\text{MHz}$ , AM MOD 90%, $f_m = 1\text{kHz}$ , $V_O = 1.5\text{V}_{P-P}$	–	30	60	$\text{mV}_{rms}$
	$V_{4(MAX)}$	$f = 58\text{MHz}$ , MOD = 0%, $V_1 = 200\text{mV}_{rms}$	–	0	0.5	V
	$R_C$	$f = 58\text{MHz}$ , MOD = 90%, $V_1 = 31.6\text{mV}_{rms}$	–	34	–	dB
IF Bandwidth	$BW_{(IF)}$	-3dB	–	80	–	MHz
Detector Bandwidth	$BW_{(DET)}$	-3dB	8	11	–	MHz
AFC Output Voltage	$V_{O(AFC)}$	$f = 58\text{MHz}$ , AM MOD 90%, $f_m = 1\text{kHz}$ , $V_1 = 31.6\text{mV}_{rms}$	100	150	200	$\text{mV}_{rms}$
Capacitance (Pin2–Pin3)	$C_{2-3}$	$f = 58\text{MHz}$	–	5	–	pF
Resistance (Pin2–Pin3)	$R_{2-3}$	$f = 58\text{MHz}$	–	4.4	–	k $\Omega$
Input Resistance	$R_{in}$	$f = 58\text{MHz}$	–	3.5	–	k $\Omega$
Input Capacitance	$C_{in}$	$f = 58\text{MHz}$	–	3.0	–	pF
Output Resistance	$R_{out}$	$f = 58\text{MHz}$	–	30	100	$\Omega$

### Pin Connection Diagram

