

NTE1187 Integrated Circuit TV Video IF Detector

Absolute Maximum Ratings:

Circuit Voltage,	
V_5, V_6	15V
V_7	3V _{P-P}
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 $+70^\circ\text{C}$
Storage Temperature Range, T_{stg}	-40° to $+125^\circ\text{C}$

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%, $f_m = 1\text{kHz}$, $V_O = 1.5V_{P-P}$	—	30	60	mV _{rms}
	$V_{4(\text{MAX})}$	$f = 58\text{MHz}$, MOD = 0%, $V_1 = 200\text{mV}_{\text{rms}}$	—	0	0.5	V
	R_C	$f = 58\text{MHz}$, MOD = 90%, $V_1 = 31.6\text{mV}_{\text{rms}}$	—	34	—	dB
IF Bandwidth	$BW_{(\text{IF})}$	—3dB	—	80	—	MHz
Detector Bandwidth	$BW_{(\text{DET})}$	—3dB	8	11	—	MHz
AFC Output Voltage	$V_{O(\text{AFC})}$	$f = 58\text{MHz}$, AM MOD 90%, $f_m = 1\text{kHz}$, $V_1 = 31.6\text{mV}_{\text{rms}}$	100	150	200	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 Ω
Input Resistance	R_{in}	$f = 58\text{MHz}$	—	3.5	—	k Ω
Input Capacitance	C_{in}	$f = 58\text{MHz}$	—	3.0	—	pF
Output Resistance	R_{out}	$f = 58\text{MHz}$	—	30	100	Ω

Pin Connection Diagram

