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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°C
Storage Temperature Range, T_{stg}	.....	-40° to +125°C

Electrical Characteristic: ($V_{CC} = 12V, T_A = +25^\circ\text{C} \pm 3^\circ\text{C}$ 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	$f = 58\text{MHz}, \text{AM MOD } 90\%, f_m = 1\text{kHz}, V_O = 1.5V_{P-P}$	–	30	60	mV_{rms}
	$V_{4(\text{MAX})}$	$f = 58\text{MHz}, \text{MOD} = 0\%, V_1 = 200\text{mV}_{\text{rms}}$	–	0	0.5	V
	R_C	$f = 58\text{MHz}, \text{MOD} = 90\%, V_1 = 31.6\text{mV}_{\text{rms}}$	–	34	–	dB
IF Bandwidth	$BW_{(IF)}$	-3dB	–	80	–	MHz
Detector Bandwidth	$BW_{(DET)}$	-3dB	8	11	–	MHz
AFC Output Voltage	$V_{O(\text{AFC})}$	$f = 58\text{MHz}, \text{AM MOD } 90\%, f_m = 1\text{kHz}, V_1 = 31.6\text{mV}_{\text{rms}}$	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

