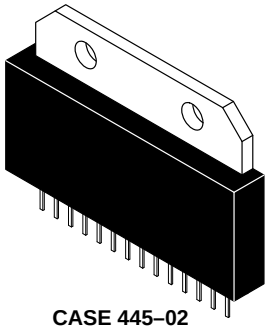
MHW2528

The RF Line
Triple Video Driver Hybrid Amplifier

. . . designed specifically for use as the video channel final stage in high resolution color monitors.

- Typical 10–90% Transitions Times are 2.8 ns
- 100 MHz Minimum Bandwidth at 40 Vp–p Output
- Up to 50 Vp–p Output Swing with 60 V Supply Voltage
- Low Power Consumption
- Excellent Grey–Scale Linearity
- Unconditional Stability
- Gold Metallization System for the Ultimate in Reliability

2.8 ns
100 MHz
TRIPLE VIDEO DRIVER HYBRID AMPLIFIER



CASE 445–02
Style 1

MAXIMUM RATINGS

Rating	Symbol	Value	Unit
Supply Voltage	V_{CC}	70	Vdc
Operating Case Temperature Range	T_C	–20 to +100	°C
Storage Temperature Range	T_{stg}	–40 to +100	°C

ELECTRICAL CHARACTERISTICS (T_C = 25°C, V_{CC} = 60 V, C_{LOAD} = 8.5 pF, 40 V peak–to–peak output swing with 30 Vdc offset; R_1 = 330 ohms, C_1 = 68 pF Typ)

Characteristic	Symbol	Min	Typ	Max	Unit
Supply Current (With Input Open Circuited) Per Channel	I_{CC}	27	33	39	mA
Input DC Voltage (With Input Open Circuited)	V_{inDC}	1.35	1.6	1.85	V
Output DC Voltage (With Input Open Circuited)	V_{outDC}	30	34	38	V
Voltage Gain (1) (2)	A_V	—	12.4	—	V/V
Transient Response (2) — Rise Time (10% to 90%) — Overshoot — Fall Time (90% to 10%) — Overshoot	 t_r $V_{OS,r}$ t_f $V_{OS,f}$	 — — — —	 2.8 8.0 2.8 6.0	 3.5 10 3.5 10	 ns % ns %
Operating Supply Current per Channel (V_{out} = 40 V Peak–to–Peak, 50 MHz Square Wave with 30 V offset) (3)	I_{CC}	—	70	—	mA
Linearity Error (V_{out} = +5.0 V to +55 V)	—	—	—	5.0	%

NOTES:
1. $A_V = V_{out}/V_S$
2. Input Signal is normally a 62.5 KHz square wave of 3.2 V peak–to–peak with 1.6 Vdc offset. Input t_r, t_f < 1.0 ns.
3. Output is not short circuit protected.

TYPICAL CHARACTERISTICS

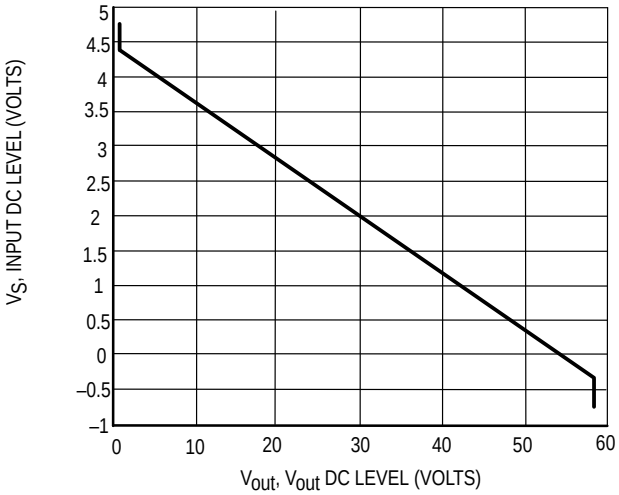


Figure 1. V_S versus V_{out}

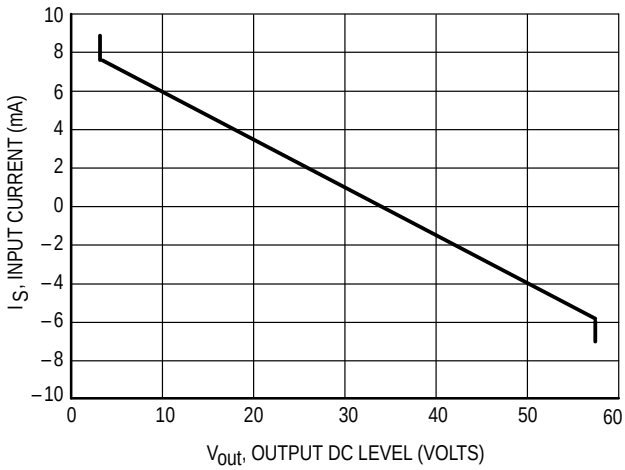


Figure 2. I_S versus V_{out}

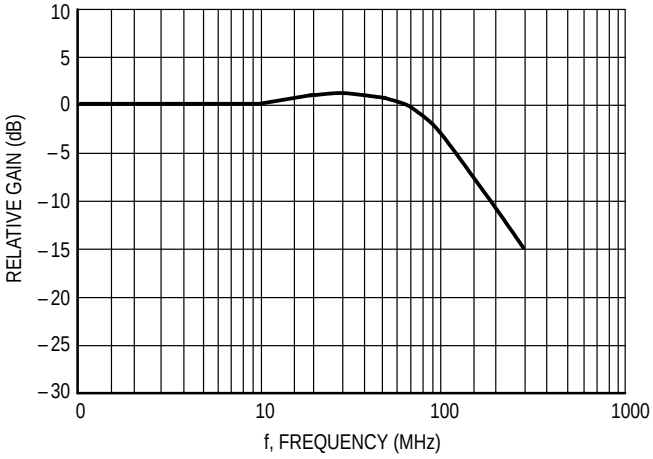


Figure 3. Frequency Response

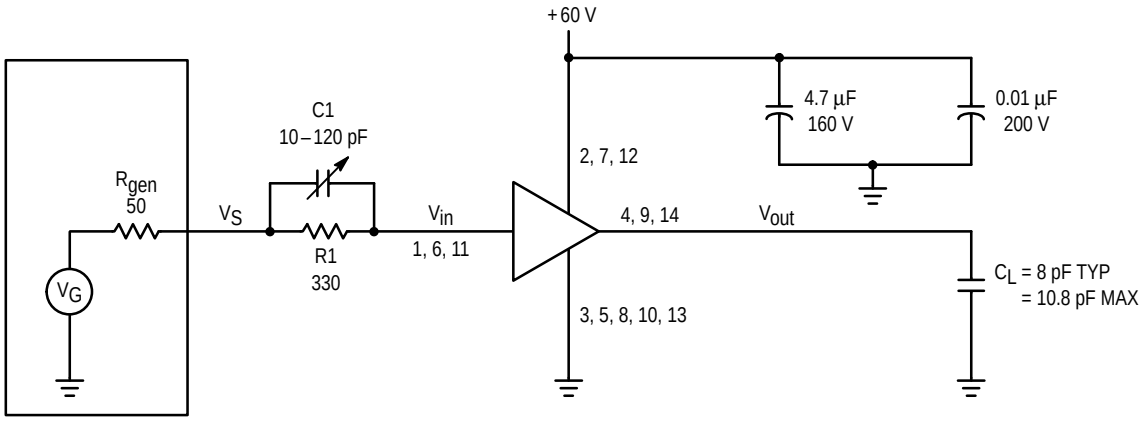
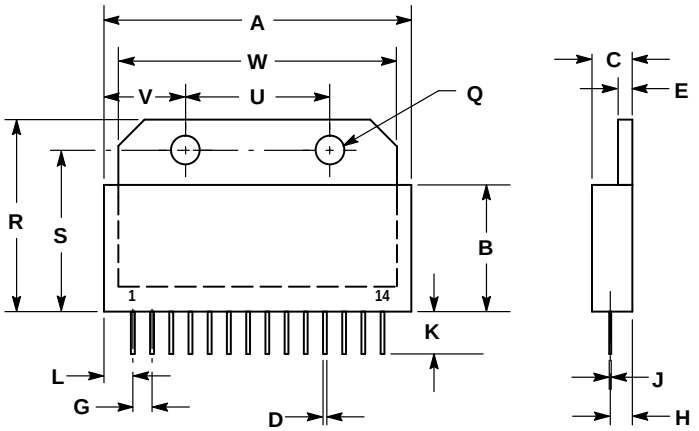


Figure 4. Hybrid Amplifier Test Circuit

PACKAGE DIMENSIONS



NOTES:
1. DIMENSIONING AND TOLERANCING PER ANSI Y14.5M, 1982.
2. CONTROLLING DIMENSION: INCH.

	INCHES		MILLIMETERS	
DIM	MIN	MAX	MIN	MAX
A	——	1.570	——	39.88
B	——	0.665	——	16.89
C	0.210	0.225	5.33	5.72
D	0.020	——	0.51	——
E	0.070	0.085	1.78	2.16
G	0.095	0.105	2.41	2.67
H	0.105	0.130	2.67	3.30
J	0.010	——	0.25	——
K	0.210	0.230	5.33	5.84
L	0.120	0.145	3.05	3.68
Q	0.140	0.155	3.56	3.94
R	0.995	1.015	25.27	25.78
S	0.835	0.855	21.21	21.72
U	0.745	0.755	18.92	19.18
V	0.385	0.415	9.78	10.54
W	1.440	1.455	36.58	36.96

STYLE 1:
PIN 1. V_{IN}
2. $+V_{CC}$
3. GROUND
4. V_{OUT}
5. GROUND
6. V_{IN}
7. $+V_{CC}$
8. GROUND
9. V_{OUT}
10. GROUND
11. V_{IN}
12. $+V_{CC}$
13. GROUND
14. V_{OUT}

CASE 445–02
ISSUE A

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