CR2424
CR2424H
CR2425

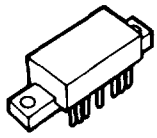
2.5 ns
130 MHz
VIDEO DRIVER
HYBRID
AMPLIFIERS

The RF Line
Video Driver Hybrid Amplifiers

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

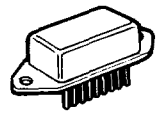
- Typical 10–90% Transition Times are 2.5 ns
- 130 MHz Minimum Bandwidth at 40 Vp-p Output
- Low Power Consumption
- Excellent Grey-Scale Linearity
- Unconditional Stability
- All Gold (Monometallic) Metallization System for the Ultimate in Reliability
- Also Available In Reverse Polarity Version (−60 V Supply) For Grid Drive Applications. Part Numbers Are CR2424R And CR2425R.

CR2424



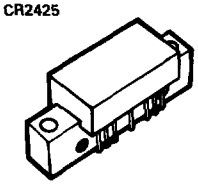
CASE 714G-01, STYLE 1
(CA LP)

CR2424H



CASE 826-01, STYLE 1
(SIP)

CR2425



CASE 714F-01, STYLE 1
(CA)

MAXIMUM RATINGS

Rating	Symbol	Value	Unit
Supply Voltage	V_{CC}	70	Vdc
Case Operating Temperature Range	T_C	−20 to +100	°C
Storage Temperature Range	T_{stg}	−40 to +125	°C

ELECTRICAL CHARACTERISTICS (V_{CC} = 60 V, T_C = 25°C, C_{Load} = 8.5 pF, 40 V Peak-to-Peak output swing with 30 Vdc offset; R_1 = 215 ohms, C_1 = 90 pF typ.)

Characteristic	Symbol	Min	Typ	Max	Unit
Supply Current (With Input Open Circuited)	I_{CC}	39.5	43.5	47.5	mA
Input DC Voltage (With Input Open Circuited)	V_{inDC}	1.15	1.4	1.65	V
Output DC Voltage (With Input Open Circuited)	V_{outDC}	26	30	34	V
Voltage Gain (1) (2)	A_V	11.2	12.4	13.2	V/V
Transient Response (2) — Rise Time (10% to 90%)	t_r	—	2.5	2.9	ns
— Overshoot	$V_{os,r}$	—	8.0	15	%
— Fall Time (10% to 90%)	t_f	—	2.5	2.9	ns
— Overshoot	$V_{os,f}$	—	6.0	10	%
Operating Supply Current (V_{out} = 40 V Peak-to-Peak, 50 MHz Square Wave with 30 V offset) (3)	I_{CC}, max	—	—	100	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 nominally a 62.5 kHz square wave of 3.25 V peak-to-peak with 1.4 Vdc offset. Input t_r, t_f < 1.0 ns.
(3) Output is not short circuit protected

5

TYPICAL CHARACTERISTICS

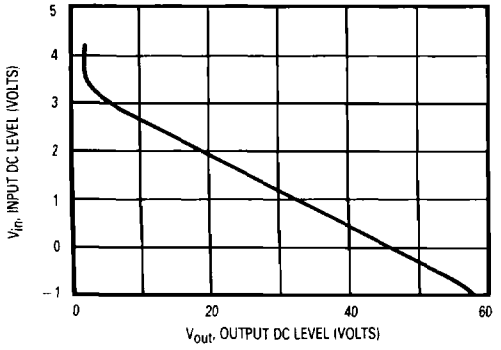


Figure 1. Voltage Ratio at RF Input Port

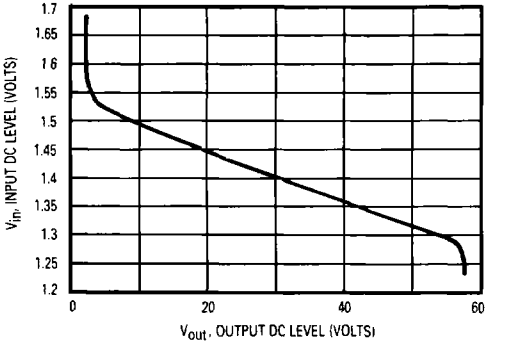


Figure 2. Voltage Ratio at Port 1

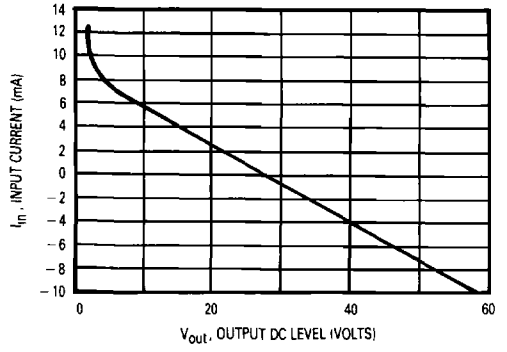


Figure 3. Output Voltage versus Input Current

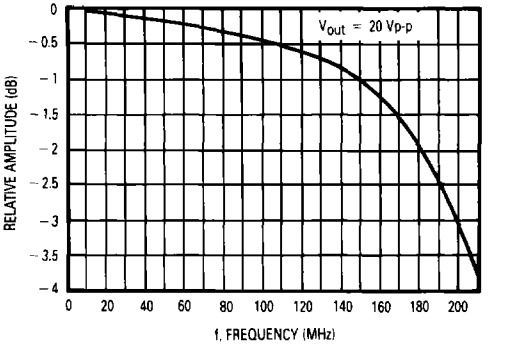


Figure 4. Frequency Response

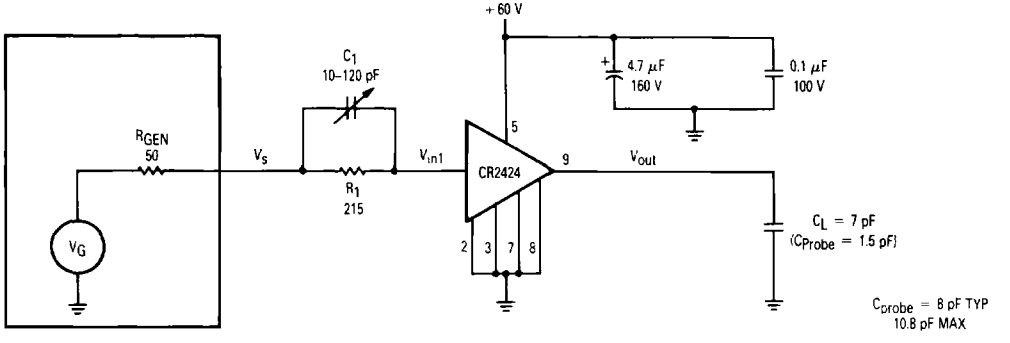


Figure 5. CRT Driver Test Circuit

5