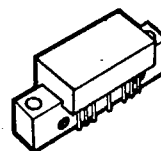
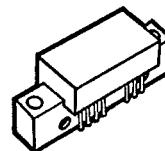


MOTOROLA
SEMICONDUCTOR
TECHNICAL DATA
The RF Line
**12-Channel (120 MHz) CATV
Reverse Amplifiers**

... designed specifically for use as return amplifiers for mid-split and high-split 2-way cable TV systems.

- Specified 24 Volt Characteristics
 - Bandwidth — 5 to 120 MHz
 - Power Gain — 18.5 dB Typ @ $f = 10$ MHz
 - Noise Figure — 5 dB Max @ $f = 100$ MHz
- All Gold Metallization for Improved Reliability
- Available for Both Positive and Negative Supply Voltages

CA2418
CA2418R

 18.5 dB
 5-120 MHz
 CATV
 REVERSE
 AMPLIFIERS

 CA (POS. SUPPLY)
 CASE 714F-01, STYLE 1
 CA2418

 CA (NEG. SUPPLY)
 CASE 714H-01, STYLE 1
 CA2418R

MAXIMUM RATINGS

Rating	Symbol	Value	Unit
RF Voltage Input (Single Tone)	V_{in}	65	dBmV
DC Supply Voltage	V_{CC}	28	Vdc
Operating Case Temperature Range	T_C	-20 to +100	°C
Storage Temperature Range	T_{stg}	-40 to +100	°C

ELECTRICAL CHARACTERISTICS ($V_{CC} = 24$ V, $T_C = 25^\circ\text{C}$, 75 Ω system unless otherwise noted)

Characteristic	Symbol	Min	Typ	Max	Unit
Frequency Range	BW	5	—	120	MHz
Power Gain — 10 MHz	G_p	18	18.5	19	dB
Slope	S	—	—	± 0.2 -0.5	dB
Gain Flatness	—	—	—	± 0.25	dB
Return Loss — Input/Output ($f = 5$ -120 MHz)	IRL/ORL	20	—	—	dB
Second Order Intermodulation Distortion ($V_{out} = +55$ dBmV per ch., ch. 2) ($V_{out} = +55$ dBmV per ch., ch. G)	IMD	—	—	-69 -65	dB
Cross Modulation Distortion ($V_{out} = +50$ dBmV per ch., ch. 2, 12-channel flat)	XMD	—	—	-60	dB
Composite Triple Beat ($V_{out} = +50$ dBmV per ch., ch. A, 12-channel flat)	CTB	—	—	-65	dB
Noise Figure ($f = 100$ MHz)	NF	—	—	5	dB
DC Current	I_{DC}	—	200	—	mA