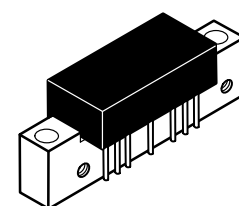


The RF Line  
**High Output Doubler**  
**600 MHz CATV Amplifier**

**MHW6185-6A**

- 24 V Supply Voltage
- Specified for 87-Channel Performance
- 6th Generation Die Technology
- Improvement in Distortion Over Conventional Hybrids
- Allows Higher Output Level Operation
- All Gold Metallization
- 7 GHz  $f_T$  Ion-Implanted Transistors

**18.5 dB GAIN**  
**600 MHz**  
**87-CHANNEL**  
**CATV AMPLIFIER**



**CASE 714-06, STYLE 1**

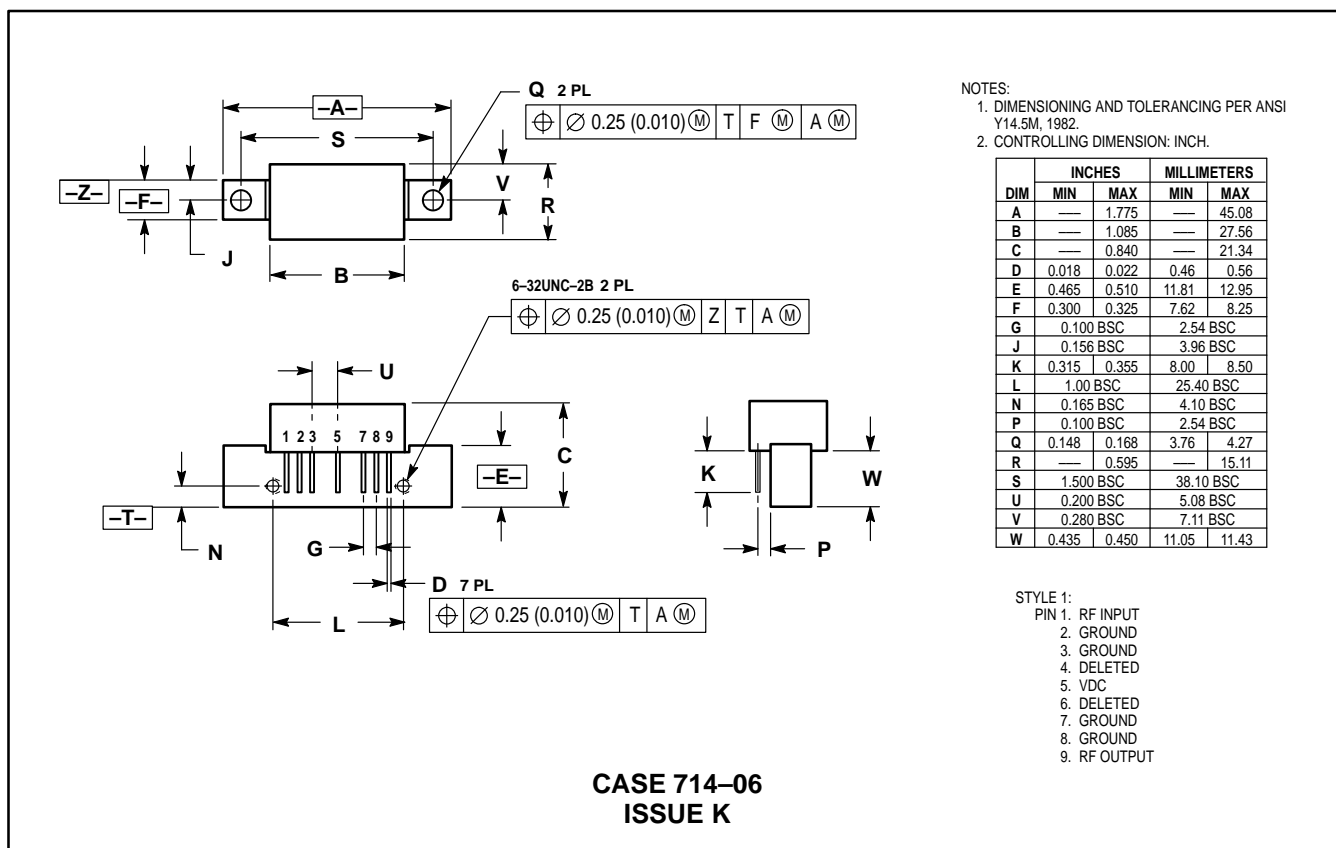
**ABSOLUTE MAXIMUM RATINGS**

Rating	Symbol	Value	Unit
RF Voltage Input	$V_{in}$	+70	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** ( $V_{CC} = 24$  Vdc,  $T_A = +30^\circ\text{C}$ , 75  $\Omega$  system unless otherwise noted)

Characteristic	Symbol	Min	Typ	Max	Unit
Frequency Range	BW	40	—	600	MHz
Power Gain	$G_p$	50 MHz	18	18.5	dB
		600 MHz	18.5	18.8	
Slope	S	0	0.3	1.5	dB
Gain Flatness (40-600 MHz, Peak to Valley)	—	—	0.3	0.6	dB
Return Loss — Input/Output ( $Z_0 = 75$ Ohms)	IRL/ORL	18	—	—	dB
Composite Second Order ( $V_{out} = +44$ dBmV/ch., Worst Case)	CSO <sub>87</sub>	—	-70	-64	dBc
Cross Modulation Distortion ( $V_{out} = +44$ dBmV/ch., FM = 55 MHz)	XMD <sub>87</sub>	—	-70	-66	dBc
Composite Triple Beat ( $V_{out} = +44$ dBmV/ch., Worst Case)	CTB <sub>87</sub>	—	-66	-64	dBc
Noise Figure	NF	50 MHz	—	5	dB
		600 MHz	—	6	
DC Current ( $V_{DC} = 24 \pm 0.5$ Vdc, $T_C = 30^\circ\text{C}$ )	$I_{DC}$	380	435	460	mA

## PACKAGE DIMENSIONS



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MHW6185-6A/D

