

CPA Series

2-12GHz 4W RF Power Amplifier

Features

- Frequency Range: 2-12GHz
- Small Signal Gain: 40dB
- P_{SAT} : +36dBm (4W)
- DC Power: +28V @ 1800mA
- RF Connector: SMA Female
- GaN RF Power Amplifier

Picture



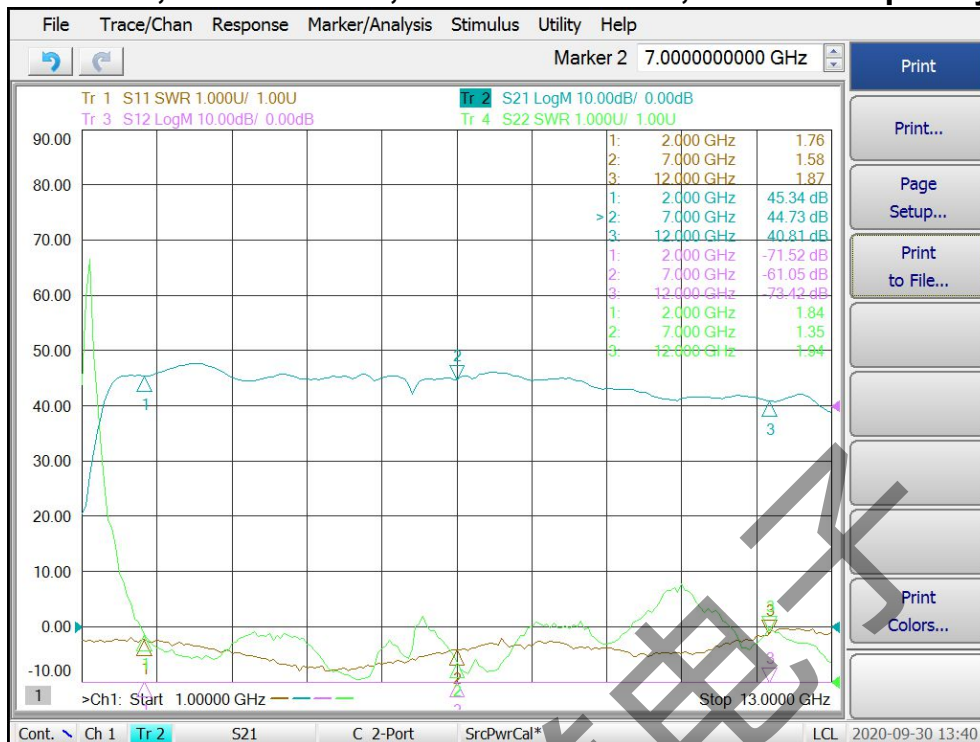
Electrical Specifications @+25°C, $Z_{in}=Z_{out}=50\ \Omega$, Power Supply = +28VDC

Parameter	Unit	Minimum	Typical	Maximum
Frequency Range	GHz	2		12
Small Signal Gain (S_{21}) $P_{IN} = -40\text{dBm}$	dB	40	43	
Gain Flatness	dB		± 2.5	± 4.0
Output Power P_{OUT} @ 7GHz, $P_{IN} = 0\text{dBm}$	dBm	+36	+37	
Efficiency	%		10	
Noise Figure @ 7GHz	dB		4.0	5.0
Isolation (S_{12})	dB	-55	-60	
VSWR Input (S_{11}) @ 7GHz	ratio:1		1.5:1	2.0:1
Output (S_{22}) @ 7GHz	ratio:1		1.5:1	2.0:1
DC Power Supply - voltage	V	24		28
DC Power Supply - current	mA		1800	2000
Size (LxWxH)	Inch/mm	6.40"x2.50"x1.05"/162.56x63.53x26.67		
Weight	Oz/gram	15/425		

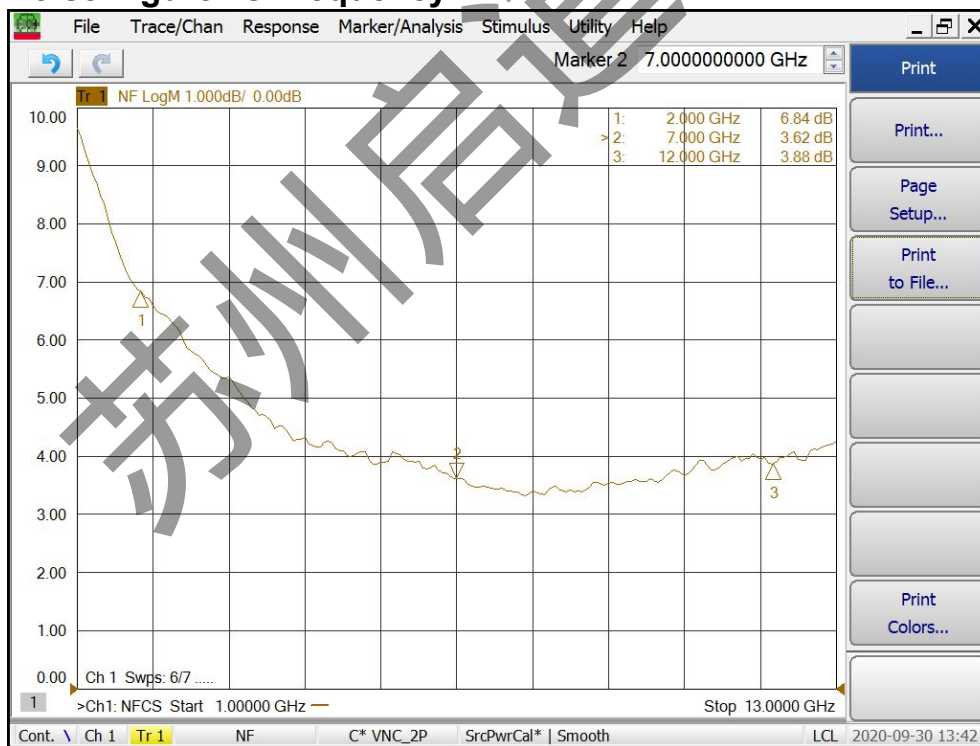
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Gain S21, Isolation S12, Return Loss S11, S22 vs Frequency



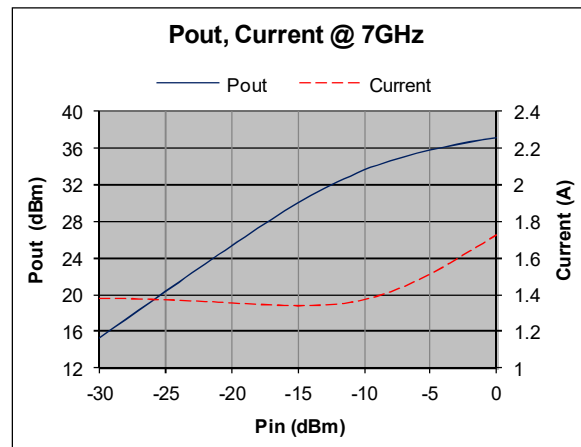
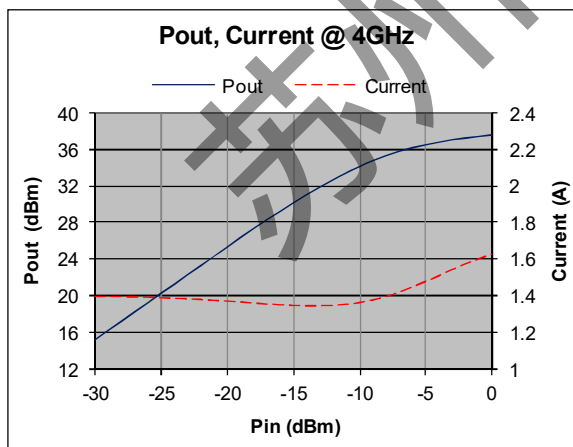
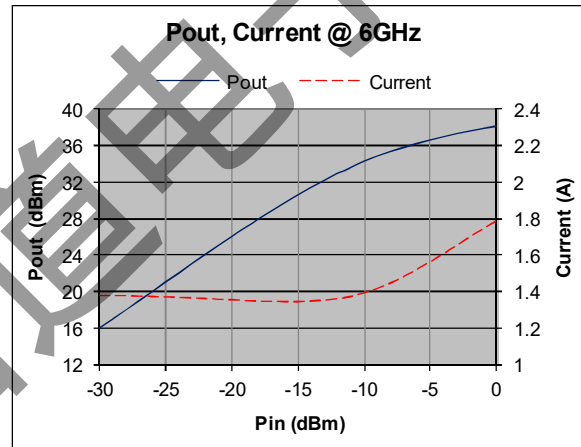
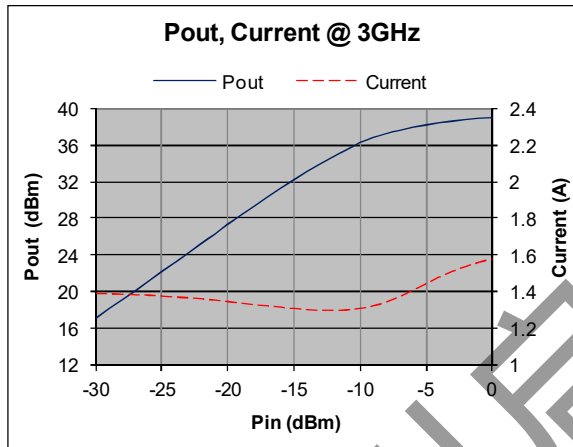
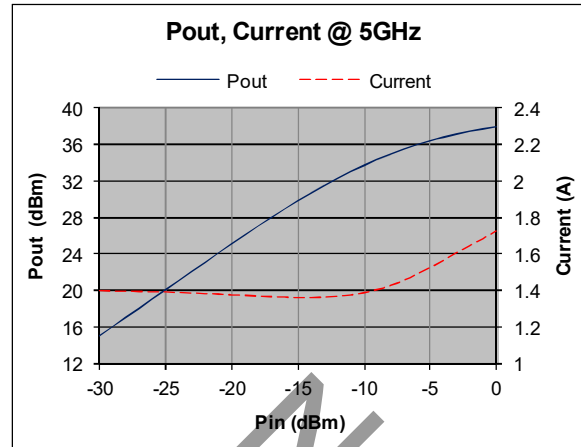
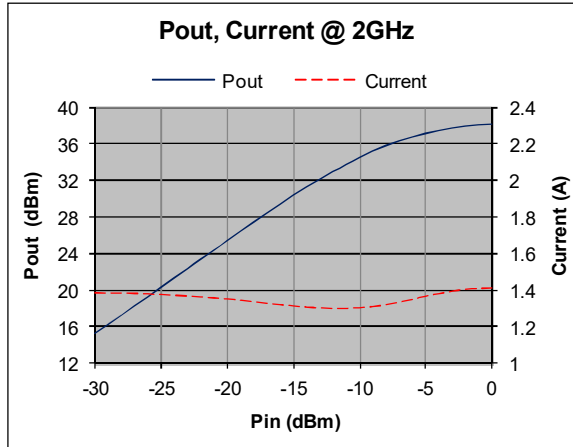
Noise Figure vs Frequency



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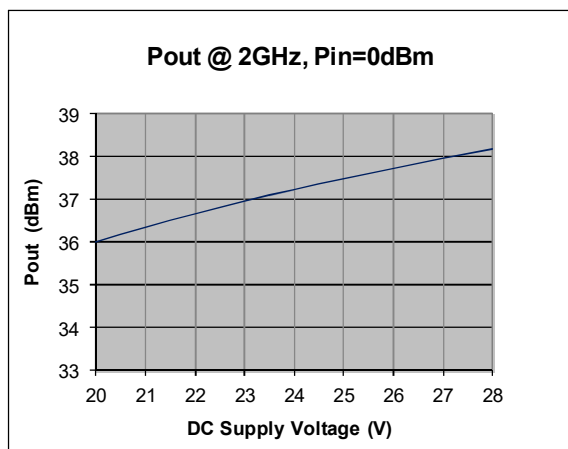
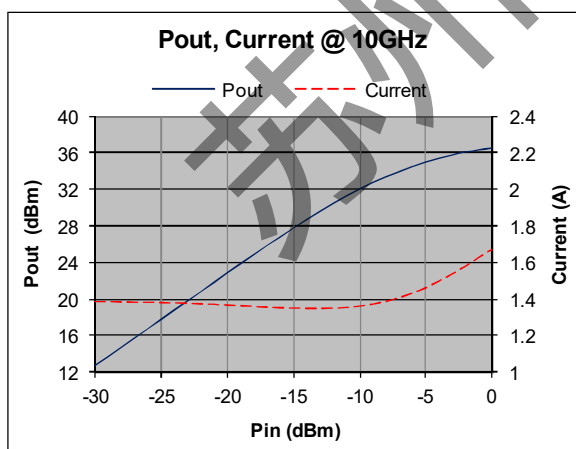
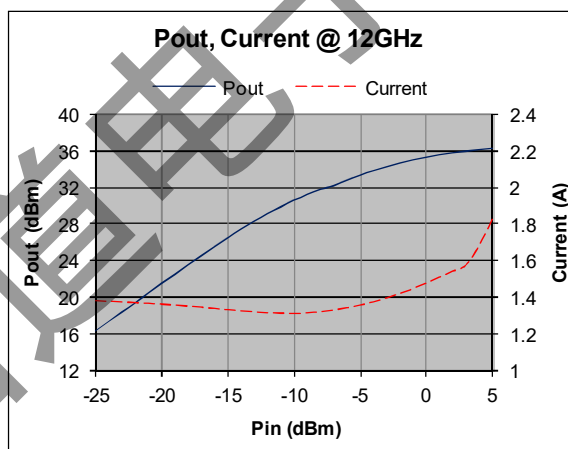
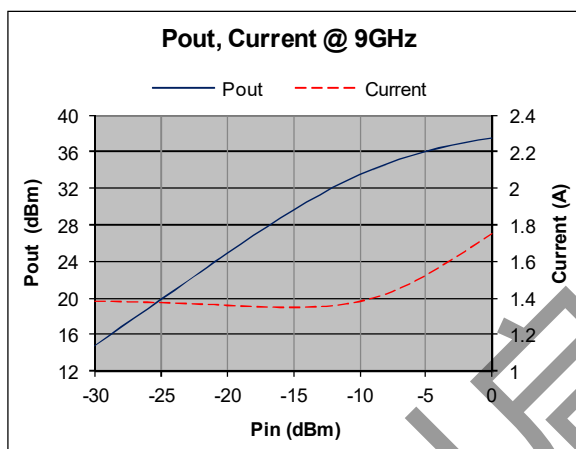
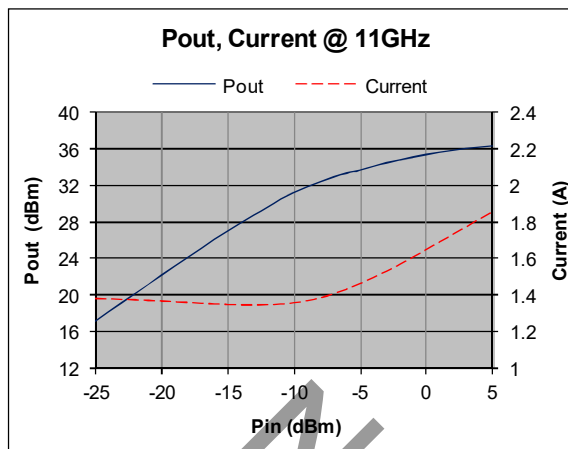
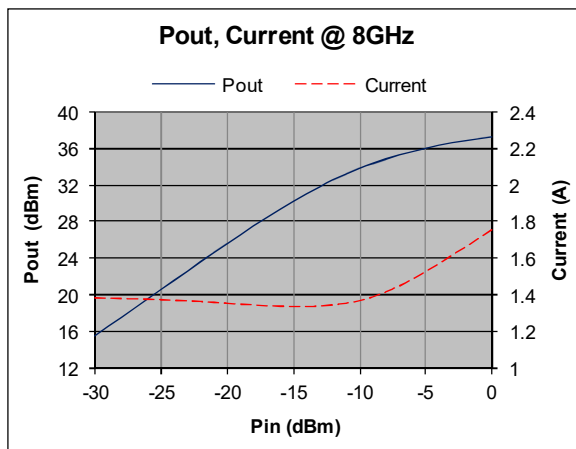
Typical Performance @ +25 °C



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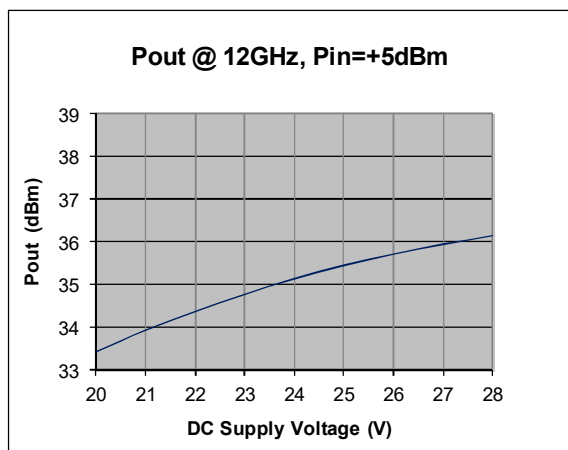
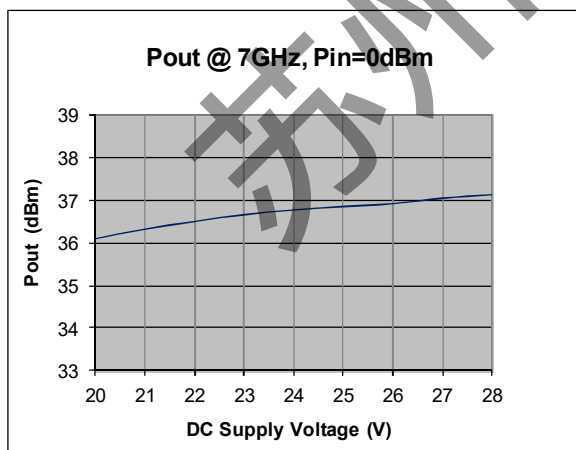
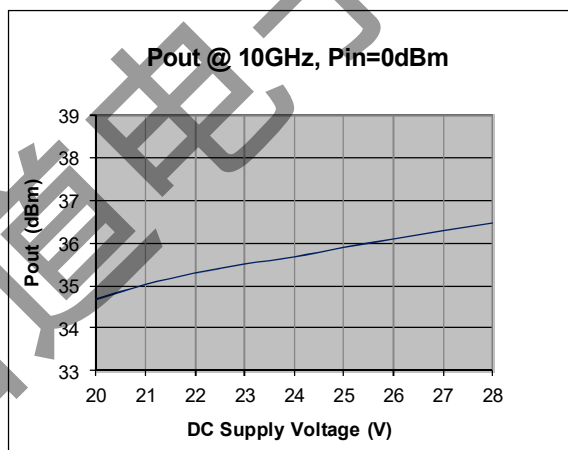
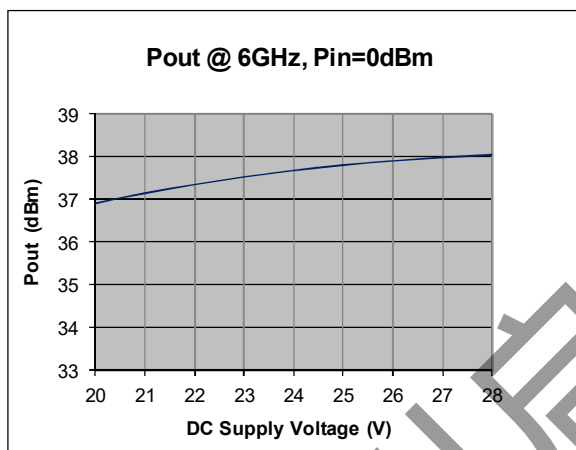
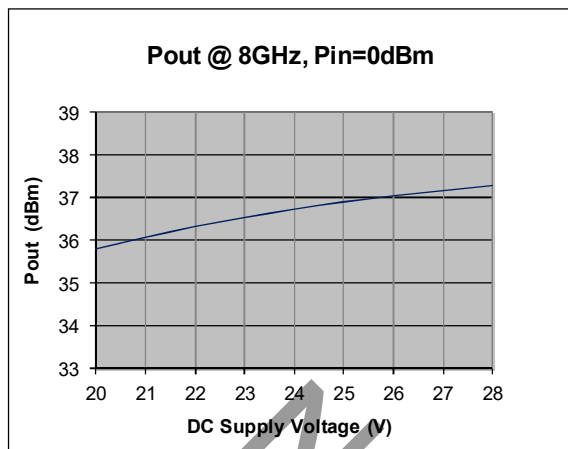
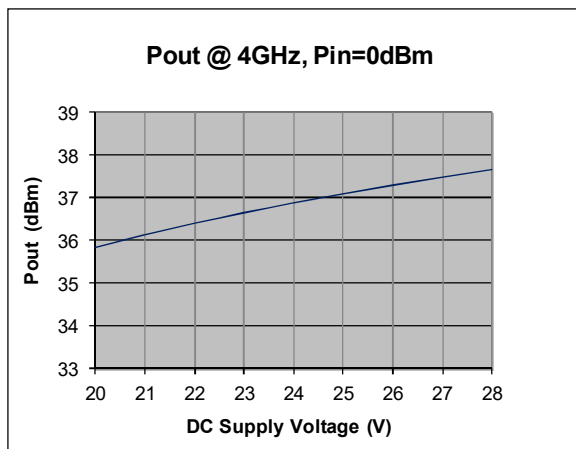
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Typical Performance @ +25 °C



CPA Series**2-12GHz 4W RF Power Amplifier****Absolute Maximum Ratings**

Parameter	Absolute Maximum
Supply Voltage	+29V
RF Input Power	+10dBm
Operating Temperature	-40 °C to +85 °C
Storage Temperature	-55 °C to +125 °C

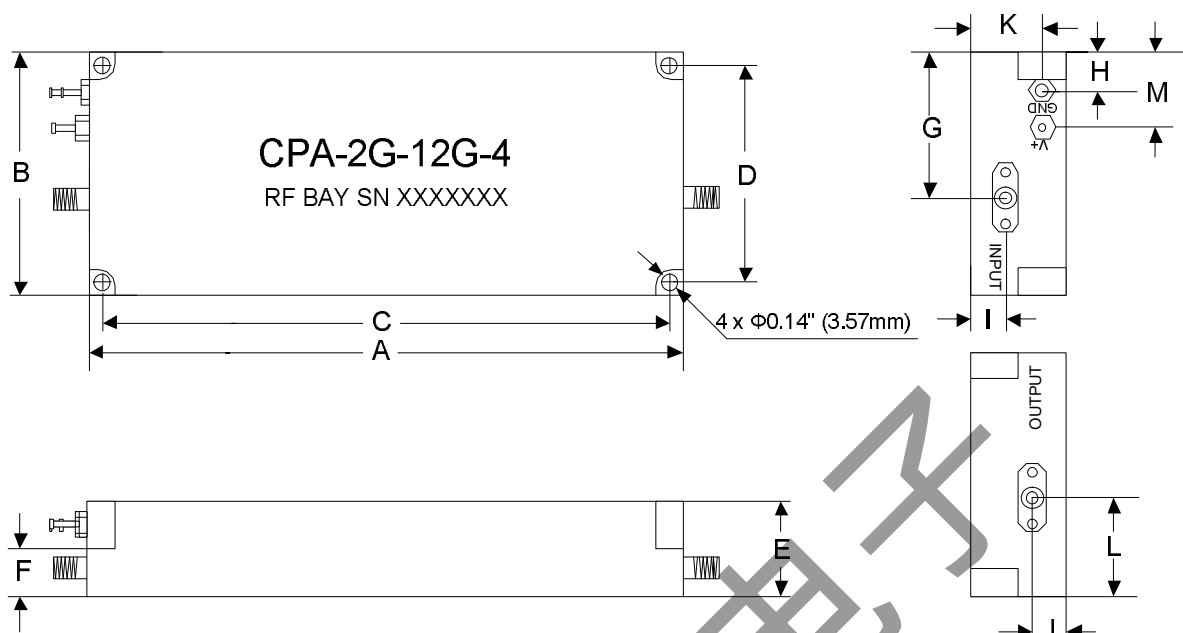
ESD Sensitive Material

WARNING: 1) MUST USE HEAT SINK. COOLING FAN RECOMMENDED.
2) LOAD MUST BE CONNECTED TO AMPLIFIER OUTPUT AT ALL
TIME IF DC POWER IS ON.

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Outline



Mounting screws recommended to use hex socket head cap #6x3/4"

	A	B	C	D	E	F	G	H	I
Inch	6.40	2.50	6.05	2.17	1.05	0.54	1.40	0.30	0.30
mm	162.56	63.50	153.67	55.12	26.67	13.72	35.56	7.62	7.62
	J	K	L	M					
Inch	0.30	0.75	1.10	0.70					
mm	7.62	19.05	27.94	17.78					