

MPA 201

0.5 Watts, 12.5 Volts, Class A
Linear to 500 MHz
50 Ω Hybrid Amplifier

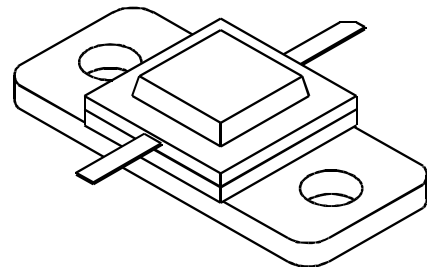
GENERAL DESCRIPTION

The MPA 201 is a COMMON EMITTER amplifier device designed for broadband performance to 500 MHz in a format suitable for stripline assembly and high reliability applications. Its wide dynamic range and flexibility commend it for a broad spectrum of instrumentation, receiver and transmitter applications. It utilizes gold metalization and diffused ballasting to provide high reliability and supreme ruggedness.

ABSOLUTE MAXIMUM RATINGS

Maximum Power Dissipation @ 25°C	6.0 Watts
Maximum Voltage and Current	
BVces Collector to Emitter Voltage	40 Volts
BVebo Emitter to Base Voltage	3.5 Volts
Ic Collector Current	300 mAmps
Maximum Temperatures	
Storage Temperature	- 55 to + 200°C
Operating Junction Temperature	+ 200°C

CASE OUTLINE 55AU, Style 2



ELECTRICAL CHARACTERISTICS @ 25 °C

SYMBOL	CHARACTERISTICS	TEST CONDITIONS	MIN	TYP	MAX	UNITS
Pout	Power Out	F = 500 MHz	0.5	0.8		Watts
Pin	Power Input	Ic = 140 mA			0.02	Watts
Pg	Power Gain	Vcc = 12.5 Volts	12	13		dB
Ft	Transition Frequency	Vce = 20 V, Ic = 140 A	3.4	3.7		GHz
VSWR	Load Mismatch Tolerance				30:1	

BVebo	Emitter to Base Breakdown	Ie = 1 mA	3.5			Volts
BVces	Collector to Emitter Breakdown	Ic = 10 mA	50			Volts
BVceo	Collector to Emitter Breakdown	Ic = 10 mA	22			Volts
hFE	DC Current Gain	Vce = 5 V, Ic = 100 mA	20			
Cob	Capacitance	Vcb = 28V, f = 1 MHz		2.0	3.0	pF
θjc	Thermal Resistance				33	°C/W

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