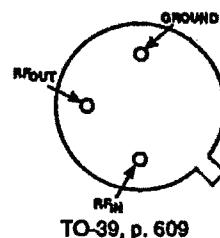


**PRODUCT DESCRIPTION**

The GPD and GPM amplifiers, available in TO-12 (4-pin) and TO-39 (3-pin) packages, are designed for applications which require the highest performance-to-cost ratio or where size is an important factor. Some versions are equipped with internal coupling and bypass capacitors, however the "60" Series

uses external coupling and bypass capacitors. This gives the user freedom to set the low frequency roll-off as needed. The GPM modules contain Si MMICs, while the GPD modules are discrete hybrid devices. These amplifiers are excellent for IF amplification purposes such as mixer postamps.

**GPD SERIES LOW COST AMPLIFIERS, TO-39 PACKAGE**

Guaranteed Specifications at 0° to 50°C Case Temperature

Model	Frequency Response (MHz)	Gain over 0° to 50°C (dB) Minimum	Gain ² over -55° to +85°C (dB) Minimum	Noise Figure (dB) Typical	Power Output at 1 dB Gain Compression (dBm) Typical	Gain Flatness (±dB) Typical	3rd-Order Intercept Point (dBm) Typical	Input Power (±1% Reg.) Voltage (VDC) Typical	Current (mA) Typical
GPD-110	0.1-400	—	12	4.0	-2.0	1.0	+12	2.5	10
GPD-120	0.1-400	—	13	5.5	+8.0	1.0	+24	5.5	25
GPD-130	0.1-400	—	12	7.0	+17.0	1.0	+27	6.0	60
GPD-310	0.1-1000	8	7	5.0	-1.0	1.0	+11	2.3	10
GPD-320	0.1-1000	8	7	5.0	+8.0	1.0	+18	3.0	25
GPD-330	0.1-1000	7	6	6.5	+16.0	1.0	+26	4.5	60
GPD-311	0.1-1000	12	11	4.5	+3.0	1.0	+15	2.7	15
GPD-321	0.1-1000	12	11	4.7	+8.0	1.0	+20	3.5	25
GPD-331	0.1-1000	10	9	6.0	+16.0	1.0	+28	5.5	60
GPD-410	0.1-1500	12	11	4.2	+2.5	1.0	+15	2.5	15
GPD-420	0.1-1500	11	10	4.7	+8.0	1.0	+20	2.8	25
GPD-430	0.1-1500	10	9	6.3	+16.0	1.0	+28	5.0	60

NOTES: 1. Three external capacitors (input, output coupling and RF bypass) are required to establish low frequency roll-off. An external bias resistor, with a value determined by the available bias voltage ($R_B = [V_{CC} - V_D] / I_D$, where R_B is the value of the bias resistor (Ohms), V_{CC} is the available source voltage, V_D is the required device bias voltage (per specification) and I_D is the device current (per specification)), is also required.

2. Military temperature conditions: -55° to +85°C