

| Model Number | RF/LO Frequency, MHz | PRINCIPAL SPECIFICATIONS |  |  |  | Port Isolation, Min. |  |  | Polarity Sense |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | IF Frequency, MHz | Operating Range, MHz | Conv Loss Max. | sion dB, Typ. | Port L-R dB |  | $\begin{gathered} \operatorname{Min} . \\ \mathrm{R-X} \\ \mathrm{~dB} \\ \hline \end{gathered}$ |  |
| DMF-12A-250 | 0.5-500 | DC-500 | $\begin{gathered} 0.5-1 \\ 1-300 \\ 300-500 \end{gathered}$ | $\begin{aligned} & \hline 8.0 \\ & 7.0 \\ & 8.0 \end{aligned}$ | $\begin{aligned} & 7.0 \\ & 6.0 \\ & 7.0 \end{aligned}$ | $\begin{aligned} & 40 \\ & 40 \\ & 35 \end{aligned}$ | $\begin{aligned} & 30 \\ & 30 \\ & 20 \end{aligned}$ | $\begin{aligned} & 23 \\ & 23 \\ & 20 \end{aligned}$ | Pos. |
| DMF-12A-500 | 10-1000 | DC-1000 | $\begin{gathered} 10-50 \\ 50-500 \\ 500-1000 \end{gathered}$ | $\begin{aligned} & 7.5 \\ & 7.5 \\ & 8.5 \end{aligned}$ | $\begin{aligned} & 6.5 \\ & 6.5 \\ & 7.5 \end{aligned}$ | $\begin{aligned} & 35 \\ & 30 \\ & 25 \end{aligned}$ | $\begin{aligned} & 30 \\ & 25 \\ & 15 \end{aligned}$ | $\begin{aligned} & 25 \\ & 20 \\ & 15 \end{aligned}$ | Pos. |
| DMF-12A-700 | 10-1500 | DC-1000 | $\begin{gathered} 10-600 \\ 600-1000 \\ 1000-1500 \end{gathered}$ | $\begin{aligned} & 8.0 \\ & 8.0 \\ & 9.5 \end{aligned}$ | $\begin{aligned} & 7.0 \\ & 7.0 \\ & 8.5 \end{aligned}$ | $\begin{aligned} & 30 \\ & 20 \\ & 20 \end{aligned}$ | $\begin{aligned} & 20 \\ & 12 \\ & 12 \end{aligned}$ | $\begin{array}{r} 15 \\ 15 \\ 8 \end{array}$ | Neg. |
| DMF-12A-1700 | 500-2000 | DC-1000 | 500-2000 | 8.0 | 6.0 | 25 | 20 | 15 | Neg. |



| GENERAL SPECIFICATIONS |  |
| :--- | :--- |
| LO Drive: | +24 dBm nom. |
| Impedance: | $50 \Omega$ nom. |
| Noise Figure: | Within $\pm 1 \mathrm{~dB}$ of |
|  | Conversion Loss |
| 1dB Comp. Point: | +16 dBm input typ. |
| Input Intercept Point: | +28 dBm typ. |
| Maximum Input Power: $900 \mathrm{~mW} @ 25^{\circ} \mathrm{C}$ |  |
| (derate linearly to $\left.0 \mathrm{mWW} @ 125^{\circ} \mathrm{C}\right)$ |  |
| DC Offset Voltage: | 8 mV typ. |
| Weight: | $0.1 \mathrm{oz}(2.8 \mathrm{~g})$ |
| Operating Temperature: | $-55^{\circ}$ to $+85^{\circ} \mathrm{C}$ |

## General Notes:

1. The DMF-12A series of Double Balanced Mixers covers the frequency range of of 0.5 to 2000 MHz using a 12 diode ring modulator to produce an extremely high level mixer with high third order intercept points.
2. Merrimac offers a broad selection of Double Balanced Mixers ideal for a variety of signal processing functions with frequencies ranging from 20 kHz to 20 GHz .
3. Merrimac mixers comply with MIL-M-28837 and may be supplied screened for compliance with additional specifications for military and space applications requiring the highest reliability.
