

**MRI - APPLICATIONS MATRIX FOR RF PIN DIODES**
**VOLUME / BIRD CAGE COILS – Switching Diodes**

 (End ring resonant / anti-resonant [Switching Diodes](#))

Model #	V <sub>BR</sub>	C <sub>T</sub> (pF)	W <sub>i</sub> (um)	τ(μs)	R <sub>s</sub> (Ω)@I <sub>F</sub> (mA) <sup>1</sup>		Application
HUM2015	1,500	3.5	275	20	0.1	500	Switching
HUM2020	2,000	3.5	275	20	0.1	500	Switching

**SURFACE COILS – RECEIVE ARRAY PIN Diodes**

(LOOP ARRAY OR STRIP ARRAY – 4 CHANNELS AND NX4 CHANNELS)

Model #	V <sub>BR</sub>	C <sub>T</sub> (pF)	W <sub>i</sub> (um)	τ(μs)	R <sub>s</sub> (Ω)@I <sub>F</sub> (mA) <sup>1</sup>		Application
UMX5601	100	2.5	175	5.0	0.75	50	<b>ULTRA-Low Magnetic</b> Receive Array
UM7201	100	2.2	50	1.5	0.25	100	Receive Array
UM9701	100	1.8	50	1.5	0.8	10	Receive Array
UM9995	100	1.2	100	2.0	0.6	100	<b>Low Magnetic</b> Receive Array
UMX5101	100	1.2	125	2.5	0.8	50	<b>ULTRA-Low Magnetic</b> Receive Array
UM9989AP <sup>3</sup>	75	1.2	--	0.004	2.0	100	<b>Low Magnetic</b> Receive Array
MPL4702 <sup>3</sup>	50	1.2 <sup>2</sup>	--	0.030	2.0	10	<b>Low Magnetic</b> Receive Array

**TRANSMIT / RECEIVE Control Boards**

Model #	V <sub>BR</sub>	C <sub>T</sub> (pF)	W <sub>i</sub> (um)	τ(μs)	R <sub>s</sub> (Ω)@I <sub>F</sub> (mA) <sup>1</sup>		Application
UM4001	100	3.0	175	5	0.25	500	T/R Control
UM4301	100	2.2	325	6	1.5	100	T/R Control
UM7301	100	0.7	325	4	3.0	100	T/R Control
SMX0512MR	500	1.5	50	3.5	0.35	100	T/R Control
UM7101	100	1.2	100	2	0.6	100	T/R Control
UM6201	100	1.1	50	0.6	0.4	100	T/R Control
UM9415	50	3.0	175	5	0.75	50	T/R Control

**RECEIVER Protection Circuits**

Model #	V <sub>BR</sub>	C <sub>T</sub> (pF)	W <sub>i</sub> (um)	τ(μs)	R <sub>s</sub> (Ω)@I <sub>F</sub> (mA) <sup>1</sup>		Application
UM9989	75	1.2	--	.006	2.0	100	Receiver Protection
UM1089	75	1.5	--	.015	0.8	100	Receiver Protection
UM7201	100	2.2	50	1.5	0.25	100	Receiver Protection
SMX0509MR	500	1.2	50	2.5	0.20	200	Receiver Protection
MPP4204	25	0.15	--	0.020	2.0	10	Receiver Protection
MPL4702 <sup>3</sup>	50	1.2 <sup>2</sup>	--	0.030	2.0	10	

Notes:

- 1) Series Resistance (R<sub>s</sub>) is measured at 100MHz.
- 2) Nominal C<sub>t</sub> per Diode
- 3) Anti parallel pairs

For the most current data, consult MICROSEMI's website: [www.MICROSEMI.com](http://www.MICROSEMI.com)  
 Specifications are subject to change, consult the factory at (978) 442-5600 for the latest information.

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