

MRI - APPLICATIONS MATRIX FOR RF PIN DIODES

VOLUME / BIRD CAGE COILS – Switching Diodes

(End ring resonant / anti-resonant Switching Diodes)

Model #	V _{BR}	C _T (pF)	Wi (um)	τ(μs)	Rs(Ω)@I _F (mA) ¹		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 _{BR}	C _T (pF)	Wi (um)	τ(μs)	Rs(Ω)@I _F (mA) ¹		Application
UM7201	100	1.2	50	1.5	0.25	100	Receive Array
UM9601	100	1.2	100	2	0.6	100	Receive Array
UM9701	100	1.8	50	1.5	0.2	50	Receive Array
UM9989AP	75	1.2	--	0.004	--	--	Low Magnetic Receive Array
UM9995	100	1.2	100	2	0.6	100	Low Magnetic Receive Array
UMX5601	100	2.5	175	5	0.75	50	ULTRA-Low Magnetic Receive Array
UMX5101	100	1.2	125	2.5	0.8	50	ULTRA-Low Magnetic Receive Array
MPP4204	25	0.15	--		2.0	10	Low Magnetic Receive Array

TRANSMIT / RECEIVE Control Boards

Model #	V _{BR}	C _T (pF)	Wi (um)	τ(μs)	Rs(Ω)@I _F (mA) ¹		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
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	2.8	175	5	0.75	50	T/R Control

RECEIVER Protection Circuits

Model #	V _{BR}	C _T (pF)	Wi (um)	τ(μs)	Rs(Ω)@I _F (mA) ¹		Application
UM9989	75	1.2	--	0.004	--	--	Receiver Protection
UM7201	100	2.2	50	1.5	0.25	100	Receiver Protection

Notes:

- 1) Series Resistance (R_S) is measured at 100MHz.