SOT-23 DIODES (continued)

TVS (for ESD protection) Peak Power Dissipation – 40 Watts @ 1 ms Surge – MMBZ15VDLT1

Breakdown Voltage				Working Peak Reverse Voltage	Maximum Reverse Leakage Current	Maximum Reverse Surge Current	Maximum Reverse Voltage @ I_{RMS} (Clamping Voltage)	Maximum Temperature Coefficient
V_{BR}[2][4] (Volts)			@ I_T (mA)	V_{RWM} (Volts)	I_{RWM} I_R (nA)	I_{RSM} (Amps)	V_{RSM} (Volts)	of V_{BR} (mV/°C)
Min	Nom	Max						
14.3	15	15.8	1.0	12.8	100	1.9	21.2	12

TVS (for ESD protection) Peak Power Dissipation – 24 Watts @ 1 ms Surge – MMBZ5V6ALT1

Breakdown Voltage				Max Reverse Leakage Current		Max Zener Impedance[3]			Max Reverse Surge Current	Max Reverse Voltage @ I_{RSM} (Clamping Voltage)	Maximum Temperature Coefficient
V_{BR}[2][4] (Volts)			@ I_T (mA)	I_R @ (µA)	V_R (V)	Z_{ZT} @ I_{ZT} (ΩA) (mA)	Z_{ZK} @ (Ω)	I_{ZK} (mA)	I_{RSM} (A)	V_{RSM}(V)	of V_{BR} (mV/°C)
Min	Nom	Max									
5.32	5.6	5.88	20	5.0	3.0	11	1600	0.25	3.0	8.0	1.26

[2] V_{BR} measured at pulse test current I_T at an ambient temperature of 25°C.

[3] Z_{ZT} and Z_{ZK} are measured by dividing the AC voltage drop across the device by the AC current supplied. The specified limits are $I_{Z(AC)} = 0.1\ I_{Z(DC)}$, with AC frequency = 1 kHz.

[4] **Other voltages may be available upon request. Contact your Motorola representative.**

Tuning Diodes

General Purpose, Abrupt and Hyper-Abrupt Junction, and Voltage Variable Capacitance diodes are used for tuning and control of RF circuits through UHF frequencies.

Pinout: 1-Anode, 2-NC, 3-Cathode

Capacitance Ratio @ 2.0 Volts/30 Volts

The following is a listing of surface mount abrupt junction tuning diodes intended for general-purpose variable capacitance circuit applications.

Device	C_T @ V_R = 4.0 V, 1.0 MHz pF Min	pF Nominal	pF Max	$V_{R(BR)R}$ Volts	Cap Ratio C2/C30 Min	Q 4.0 V, 50 MHz Typ
ABRUPT TUNING DIODES						
MMBV2101LT1	6.1	6.8	7.5	30	2.5	400
MMBV2103LT1	9.0	10	11	30	2.5	350
MMBV2104LT1	10.8	12	13.2	30	2.5	350
MMBV2105LT1	13.5	15	16.5	30	2.5	350
MMBV2107LT1	19.8	22	24.2	30	2.5	300
MMBV2108LT1	24.3	27	29.7	30	2.5	250
MMBV2109LT1	29.7	33	36.3	30	2.5	200

The following is a listing of abrupt tuning diodes that are available as dual units in a single package.

Device	C_T @ V_R[2] pF Min	pF Max	Volts	Cap Ratio C3/C30 Min	Q 3.0 V, 50 MHz Min	$V_{(BR)R}$ Volts	Device Marking	Style
ABRUPT TUNING DIODES FOR FM RADIO — DUAL								
MMBV432LT1	43	48.1	2.0	1.5[1]	100	14	M4B	9

[1] C2/C8

[2] Each Diode

See Packaging Information under Technical Data Section for reel size, quantity and ordering information.

Devices listed in bold, italic are Motorola preferred devices.

Tuning Diodes (continued)

The following is a listing of hyper-abrupt tuning diodes intended for high frequency, FM radio, and TV tuner applications.

Device	C_T @ V_R (f = 1.0 MHz)			Cap Ratio @ V_R			Q		$V_{(BR)R}$ Volts	Device Marking	Case Style	CV Curve Fig
	pF Min	pF Max	Volts	Min	Max	Volts	3.0 V Min	50 MHz Max				
HYPER-ABRUPT TUNING DIODES FOR TELECOMMUNICATIONS — SINGLE												
MMBV105GLT1	1.8	2.8	25	4.0	6.0	3/25	200	—	30	M4E	8	1
MMBV109LT1	26	32	3.0	5.0	6.5	3/25	200	—	30	M4A	8	2
MMBV409LT1	26	32	3.0	1.5	2.0	3/8	200	—	20	X5	8	3
MMBV809LT1	4.5	6.1	2.0	1.8	2.6	2/8	300	—	20	5K	8	4
MMBV3102LT1	20	25	3.0	4.5	—	3/25	200	—	30	M4C	8	5
HYPER-ABRUPT TUNING DIODES FOR TELECOMMUNICATIONS — DUAL												
MMBV609LT1	26	32	3.0	1.8	2.4	3/8	250	—	20	5L	9	6

See Packaging Information under Technical Data Section for reel size, quantity and ordering information.

Devices listed in bold, italic are Motorola preferred devices.