

HERMETICALLY SEALED
GLASS PACKAGED TUNING DIODES

ABRUPT - HYPERABRUPT U

ELECTRICAL CHARACTERISTICS (T_A = 25° C unless otherwise noted)

Diode Cap (CT)* ±10% @ 4V/1 MHz pF	GENERAL APPLICATIONS			LOW INDUCTANCE FOR USE TO 2.5 GHz			MINIATURE GLASS VERY HIGH Q			VERY HIGH Q PREDICTABLE TRACKING			GENERAL PURPOSE			pF
	TYPE NO	RATIO C ₂ /C ₂₀ min/typ	Q ₄ @ 50 MHz	TYPE NO	RATIO C ₂ /C ₂₀ min/max	Q ₄ @ 50 MHz min	TYPE NO	RATIO C ₂ /C ₃₀ min/typ	Q ₄ @ 50 MHz min	TYPE NO.	RATIO C ₂ /C ₃₀ min/typ	Q ₄ @ 50 MHz min	TYPE NO.	RATIO C ₄ /C ₂₅ min/typ	Q ₄ @ 50 MHz	
1.8							SQ1213A	2.2/2.7	1500							1.8
2.2				G702A	1.7/2.2	700	SQ1214A	2.3/2.8	1400	SQ1714	2.2/2.6	1400				2.2
2.7							SQ1215A	2.4/2.8	1300	SQ1715	2.3/2.7	1300				2.7
3.3				G603A	1.7/2.2	600	SQ1216A	2.5/3.0	1200	SQ1716 ²	2.4/2.8	1200				3.3
3.9				G604A	1.8/2.4	600	SQ1217A	2.5/3.0	1100	SQ1717	2.4/2.8	1100				3.9
4.7							SQ1218A	2.5/3.0	1000	SQ1718	2.5/2.9	1000				4.7
5.6				G605A	1.8/2.4	600	SQ1219A	2.6/3.1	1000	SQ1719	2.5/2.9	1000				5.6
6.8	MV1620	2.0/2.5	300	G606A	1.9/2.4	600	SQ1220A	2.7/3.1	1000	SQ1720	2.7/3.1	1000				6.8
8.2	MV1622	2.0/2.5	300				SQ1222A	2.9/3.2	1000	SQ1722	2.8/3.2	1000				8.2
10.0	MV1624	2.0/2.5	300	G610A	1.9/2.4	600	SQ1224A	2.9/3.2	1000	SQ1724	2.8/3.1	1000				10.0
12.0	MV1626	2.0/2.5	300				SQ1226A	2.9/3.2	900	SQ1726	2.8/3.1	900				12.0
15.0	MV1628	2.0/2.5	250	G615A	2.0/2.5	600	SQ1228A	2.9/3.2	900	SQ1728	2.8/3.1	900	MV830	1.8/2.0	30	15.0
18.0	MV1630	2.0/2.6	250				SQ1230A	2.9/3.2	900	SQ1730	2.9/3.1	900	MV831	1.8/2.0	25	18.0
20.0	MV1632	2.0/2.6	250	G522A	2.0/2.5	500	SQ1232A	2.9/3.2	800	SQ1732	2.9/3.1	800				20.0
22.0	MV1634	2.0/2.6	250				SQ1234A	3.0/3.3	800	SQ1734	2.9/3.2	800	MV832	1.8/2.1	25	22.0
27.0	MV1636	2.0/2.6	200				SQ1236A	3.0/3.3	800	SQ1736	2.9/3.2	800	MV833	1.8/2.1	25	27.0
33.0	MV1638	2.0/2.6	200				SQ1238A	3.0/3.3	700	SQ1738	2.9/3.2	700	MV834	1.9/2.2	20	33.0
39.0	MV1640	2.0/2.6	200							SQ1740	2.9/3.2	600	MV835	1.9/2.2	20	39.0
47.0	MV1642	2.0/2.7	200							SQ1742	2.9/3.2	500	MV836	1.9/2.2	15	47.0
56.0	MV1644	2.0/2.7	150							SQ1744	2.9/3.2	450	MV837	1.9/2.2	15	56.0
68.0	MV1646	2.0/2.7	150							SQ1746	2.9/3.2	300	MV838	2.0/2.2	15	68.0
82.0	MV1648	2.0/2.7	150							SQ1748	2.9/3.2	300	MV839	2.0/2.2	10	82.0
100.0	MV1650	2.0/2.7	150							SQ1750	2.9/3.2	300	MV840	2.0/2.2	10	100.0
VR (min)	20 Vdc @ IR @ 10 uAdc			25 Vdc @ IR - 10 uAdc			30 Vdc @ IR - 10 uAdc			30 Vdc @ IR = 10 uAdc			30 Vdc @ IR - 10 uAdc			
IR (max)	0.1 uAdc @ VR 15 Vdc			0.5 uAdc @ VR - 20 Vdc			0.02 uAdc @ VR - 25 Vdc 2.0 uAdc @ TA = 150°C			0.02 uAdc @ VR 25 Vdc 2.0 uAdc @ TA = 150°C			0.2 uAdc @ VR - 25 Vdc			
TCC1	300 ppm/°C			300 ppm/°C			300 ppm/°C			300 ppm/°C			300 ppm/°C			
Case	DO 7			DO 35			Miniature DO 7			DO 7			DO 7			

15 & 20 VOLTS				
Diode Cap (CT)*	TYPE NO	RATIO C ₂ /C ₂₀ typ	Q ₄ @ 20 MHz min	
120.0	MV1652	2.6	250	
150.0	MV1654	2.6	250	
180.0	MV1656	2.6	200	
200.0	MV1658	2.6	200	
4V/1 MHz ± 10%	220.0	MV1660	2.6	150
	250.0	MV1662	2.3	150
	270.0	MV1664	2.3	100
	330.0	MV1666	2.3	100
VR (min)	20 Vdc @ IR = 10 uAdc MV1652/60 15 Vdc @ IR = 10 uAdc MV1652/66			
IR (max)	0.1 uAdc @ VR = 15 Vdc MV1652/60 0.1 uAdc @ VR = 10 Vdc MV1652/66			
TCC	300 ppm/°C			
Case	DO 14			

*Total Diode Capacitance measured at 1 MHz and VR specified
To order devices with CT Nom ± 5.0% or ± 2.0% add Suffix B or C respectively

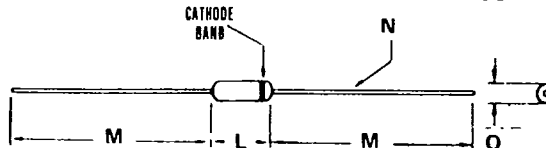
- (1) Capacitance Temperature Coefficient (typ) @ 4V/1 MHz
- (2) For SQ1716, C₄ = 3 pf nom
- (3) Tuning Ratio @ C₂/C₁₅ for MV1662/66

GENERAL SPECIFICATIONS

(25° C unless noted)

RATING	SYMBOL	VALUE			
Reverse Voltage	VR	As SPECIFIED			
Junction Temperature	T _J	+175°C Max			
Storage Temperature	T _{stg}	-65°C to 200°C			
Linear Power Derating		4 mW/°C			
Device Dissipation (mW Max)	PD	DO-35	MIN DO-7	DO-7	DO-14
Case Capacitance (pf Typ)	CC	0.10	0.15	0.2	0.3
Series Inductance (nhy Typ)	LS	1.5	3.0	5.0	5.0

PACKAGE CHARACTERISTICS



DIM	DO-35		Min DO-7		DO-7		DO-14	
	Min	Max	Min	Max	Min	Max	Min	Max
L		.180	0.150	0.176		0.300		0.300
M	1.00		1.000		1.000		1.000	
N	0.019	0.021	0.014	0.016	0.019	0.021	0.019	0.021
O	.075	.085	0.068	0.076	0.092	0.104	0.108	0.140

All dimensions in inches, to convert to millimeters, multiply by 25.4

For other types not listed he
your representative or the fa
requirements.

