

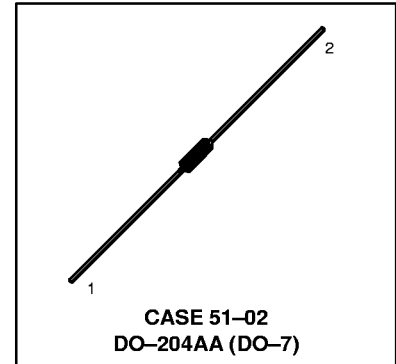
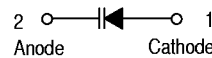
Silicon Tuning Diodes

These epitaxial passivated tuning diodes are designed for AFC applications in radio, TV, and general electronic-tuning.

- Maximum Working Voltage of 20 V
- Excellent Q Factor at High Frequencies
- Solid-State Reliability to Replace Mechanical Tuning Methods

**MV1626 thru
MV1650**

**6.8–100 pF
20 VOLTS
VOLTAGE-VARIABLE
CAPACITANCE DIODES**



MAXIMUM RATINGS

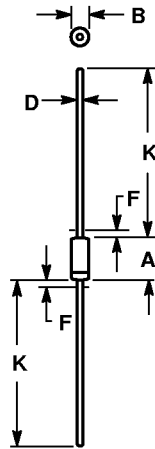
Rating	Symbol	Value	Unit
Reverse Voltage	V_R	20	Vdc
Forward Current	I_F	250	mAdc
Device Dissipation @ $T_A = 25^\circ\text{C}$ Derate above 25°C	P_D	400 2.67	mW mW/°C
Junction Temperature	T_J	+175	°C
Storage Temperature Range	T_{stg}	-65 to +200	°C

ELECTRICAL CHARACTERISTICS ($T_A = 25^\circ\text{C}$ unless otherwise noted)

Characteristic	Symbol	Min	Typ	Max	Unit
Reverse Breakdown Voltage ($I_R = 10 \mu\text{Adc}$)	$V_{(BR)R}$	20	—	—	Vdc
Reverse Voltage Leakage Current ($V_R = 15 \text{Vdc}$, $T_A = 25^\circ\text{C}$)	I_R	—	—	0.10	μAdc
Series Inductance ($f = 250 \text{MHz}$, Lead Length $\approx 1/16$)	L_S	—	4.0	—	nH
Case Capacitance ($f = 1.0 \text{MHz}$, Lead Length $\approx 1/16$)	C_C	—	0.17	—	pF

Device	C_T , Diode Capacitance $V_R = 4.0 \text{Vdc}$, $f = 1.0 \text{MHz}$ pF			Q , Figure of Merit $V_R = 4.0 \text{Vdc}$, $f = 50 \text{MHz}$	TR, Tuning Ratio C_2/C_{20} $f = 1.0 \text{MHz}$	
	Min	Nom	Max	Typ	Min	Max
MV1626	10.8	12.0	13.2	300	2.0	3.2
MV1628	13.5	15.0	16.5	250	2.0	3.2
MV1630	16.2	18.0	19.8	250	2.0	3.2
MV1634	19.8	22.0	24.2	250	2.0	3.2
MV1638	29.7	33.0	36.3	200	2.0	3.2
MV1648	73.8	82.0	90.2	150	2.0	3.2
MV1650	90.0	100.0	110.0	150	2.0	3.2

PACKAGE DIMENSIONS




- NOTES:
1. PACKAGE CONTOUR OPTIONAL WITHIN DIA B AND LENGTH A. HEAT SLUGS, IF ANY, SHALL BE INCLUDED WITHIN THIS CYLINDER, BUT SHALL NOT BE SUBJECT TO THE MIN LIMIT OF DIA B.
 2. LEAD DIA NOT CONTROLLED IN ZONES F, TO ALLOW FOR FLASH, LEAD FINISH BUILDUP, AND MINOR IRREGULARITIES OTHER THAN HEAT SLUGS.

DIM	MILLIMETERS		INCHES	
	MIN	MAX	MIN	MAX
A	5.84	7.62	0.230	0.300
B	2.16	2.72	0.085	0.107
D	0.46	0.56	0.018	0.022
F	—	1.27	—	0.050
K	25.40	38.10	1.000	1.500

All JEDEC dimensions and notes apply.

CASE 51-02
(DO-204AA)
ISSUE E

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How to reach us:

USA/EUROPE/ Locations Not Listed: Motorola Literature Distribution;
P.O. Box 5405, Denver, Colorado 80217. 303-675-2140 or 1-800-441-2447

JAPAN: Nippon Motorola Ltd.; Tatsumi-SPD-JLDC, 6F Seibu-Butsuryu-Center,
3-14-2 Tatsumi Koto-Ku, Tokyo 135, Japan. 81-3-3521-8315

Mfax™: RMFAX0@email.sps.mot.com – TOUCHTONE 602-244-6609
– US & Canada ONLY 1-800-774-1848

ASIA/PACIFIC: Motorola Semiconductors H.K. Ltd.; 8B Tai Ping Industrial Park,
51 Ting Kok Road, Tai Po, N.T., Hong Kong. 852-26629298

INTERNET: <http://motorola.com/sps>

