



GENERAL PURPOSE
SILICON EPITAXIAL VARACTRON ©
VOLTAGE VARIABLE CAPACITANCE DIODES

V7-V100

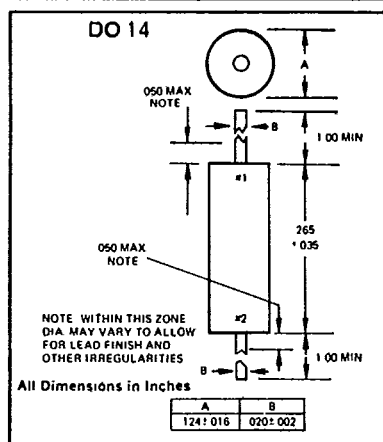
V7E-V100E

- EPITAXIAL CONSTRUCTION
- DC (MWV) RATINGS (25 TO 100 VOLTS)
- LOW LEAKAGE
- ABRUPT JUNCTION

GEOMETRY 415**ELECTRICAL DATA ABSOLUTE MAXIMUM RATINGS**

Parameter	Symbol	Maximum	Units
Operating Temperature	T_{opr}	-65 to +150	°C
Storage Temperature	T_{stg}	-65 to +175	°C
Total Power Dissipation (@ 25°C in free air)	P_D	500	mW
Maximum Working Voltage	MWV	as specified*	VDC

* Bias voltage plus signal voltage should not exceed MWV.

**ELECTRICAL CHARACTERISTICS: $T_A = 25^\circ\text{C}$ (UNLESS OTHERWISE STATED)**

Diode Type	Capacitance (pF) $\pm 20\%$ @ -4VDC, 1mc	Maximum Working Voltage (MWV)	Typical Capacitance Range (pF) 0.1V to MWV	Q_c @ -4VDC, 50mc Minimum	Max. Inverse Current (μA DC) Test Volts
V7	7	25	3.0- 18.0	15	0.1, 25
V10	10	25	4.3- 26.0	15	0.1, 25
V12	12	25	5.2- 31.0	15	0.1, 25
V15	15	25	6.5- 39.0	15	0.1, 25
V20	20	25	8.3- 50.0	15	0.1, 25
V27	27	25	11.7- 70.0	15	0.1, 25
V33	33	25	14.2- 85.0	15	0.1, 25
V39	39	25	16.6-100.0	15	0.1, 25
V47	47	25	20.0-120.0	15	0.1, 25
V56	56	25	24.1-145.0	15	0.1, 25
V68	68	25	29.1-175.0	15	0.1, 25
V82	82	25	35.0-210.0	12	0.1, 25
V100	100	25	43.3-260.0	12	0.1, 25
V7E	7	100	1.5- 18.0	7	0.1, 100
V10E	10	100	2.2- 26.0	7	0.1, 100
V12E	12	100	2.7- 31.0	7	0.1, 100
V15E	15	100	3.3- 39.0	7	0.1, 100
V20E	20	90	5.0- 50.0	7	0.1, 90
V27E	27	65	7.0- 70.0	7	0.1, 65
V33E	33	60	9.0- 85.0	7	0.1, 60
V39E	39	55	11.0-100.0	7	0.1, 55
V47E	47	50	14.0-120.0	7	0.1, 50
V56E	56	40	20.0-145.0	7	0.1, 40
V68E	68	30	28.0-175.0	9	0.1, 30
V82E	82	20	40.0-210.0	9	0.1, 20
V100E	100	20	50.0-260.0	8	0.1, 20

Add Suffix "A" for $\pm 10\%$, "B" for $\pm 5\%$
 "C" for $\pm 2\%$ and "D" for $\pm 1\%$
 Capacitance Tolerances.



TELEDYNE CRYSTALONICS

147 Sherman Street, Cambridge, MA 02140 USA
 Tel: (617) 491-1670 • FAX: 617/547-6119 • TWX: 710-320-1196