



LOW COST
HIGH Q
 SILICON VARACTRON[™]
VOLTAGE-VARIABLE CAPACITANCE DIODES

**CV5007
 THRU
 CV5100**

GEOMETRY 415

Replaces MV 2101 thru MV 2115

- Q@-4V DC, 50 MHz to 450
- HERMETIC DO-7 PACKAGE
- SPECIFIED TUNING RATIO LIMITS

ABSOLUTE MAXIMUM RATINGS: (ALL TYPES)

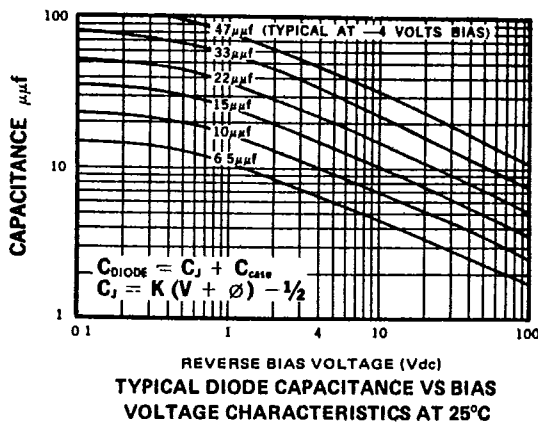
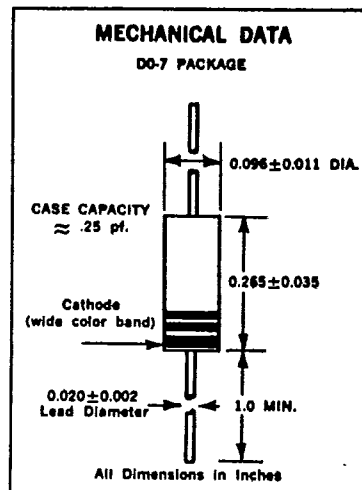
| PARAMETER | SYMBOL | MAXIMUM | UNIT |
|--------------------------------------------|------------------|-------------|-------|
| Reverse Voltage | V _R | 30 | Volts |
| Forward Current | I _F | 250 | mA |
| Device Dissipation @ T _A = 25°C | P _D | 400 | mW |
| Operating Temperature Range | T _{opr} | -65 to +175 | °C |
| Storage Temperature Range | T _{stg} | -65 to +200 | °C |

ELECTRICAL DATA: (T_A = 25°C) ALL TYPES (UNLESS OTHERWISE NOTED)

| PARAMETER | SYMBOL | Min. | Max. | Unit |
|---------------------------------------------------------------------------------------------------|-----------------|------|------|--------|
| Reverse Voltage Breakdown @ I _R = 10μA _{dc} | BVR | 30 | | Volts |
| Reverse Leakage Current @ V _R = 25 V _{dc} | I _R | | 0.10 | μA |
| Temp. Coefficient of Capacitance V _R = 4 V _{dc} , f = 1 MHz (-65 to +85°C) | T _{cc} | | 400 | ppm/°C |

ELECTRICAL CHARACTERISTICS: T_A = 25°C (UNLESS OTHERWISE NOTED)

| Device Type | C ₁ - Nominal Diode Capacitance V _R = 4VDC, f = 1 MHz | Minimum Q (Figure of Merit) V _R = 4VDC f = 80 MHz | Tuning Ratio C ₂ /C ₃₀ , 1 MHz | |
|-------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------|---------------------------------------------------------|------|
| | | | Min. | Max. |
| CV5007 | 6.8 | 450 | 2.5 | 3.1 |
| CV5008 | 8.2 | 450 | 2.5 | 3.1 |
| CV5010 | 10.0 | 400 | 2.5 | 3.1 |
| CV5012 | 12.0 | 400 | 2.5 | 3.1 |
| CV5015 | 15.0 | 400 | 2.5 | 3.1 |
| CV5018 | 18.0 | 350 | 2.5 | 3.1 |
| CV5020 | 20.0 | 350 | 2.5 | 3.1 |
| CV5022 | 22.0 | 350 | 2.5 | 3.2 |
| CV5027 | 27.0 | 300 | 2.5 | 3.2 |
| CV5033 | 33.0 | 200 | 2.5 | 3.2 |
| CV5039 | 39.0 | 150 | 2.5 | 3.2 |
| CV5047 | 47.0 | 150 | 2.5 | 3.2 |
| CV5066 | 56.0 | 150 | 2.6 | 3.3 |
| CV5068 | 68.0 | 150 | 2.6 | 3.3 |
| CV5082 | 82.0 | 100 | 2.6 | 3.3 |
| CV5100 | 100.0 | 100 | 2.6 | 3.3 |



Standard Capacitance Tolerance = ± 10%
 Other Tolerances available upon request.

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