

## VCR3P

# P-Channel Silicon Voltage Controlled Resistor JFET

- Small Signal Attenuators
- Filters
- Amplifier Gain Control
- Oscillator Amplitude Control

### Absolute maximum ratings at $T_A = 5^\circ\text{C}$ .

|  |           |
|--|-----------|
| Reverse Gate Source & Reverse Gate Drain Voltage | 15 V      |
| Continuous Forward Gate Current                  | 10 mA     |
| Continuous Device Power Dissipation              | 300 mW    |
| Power Derating                                   | 2.4 mW/°C |

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### At 25°C free air temperature: Static Electrical Characteristics

|                               |               | VCR3P |     | Process PJ99 |   |  |
|-------------------------------|---------------|-------|-----|--------------|---|--|
|                               |               | Min   | Max | Unit         | Test Conditions                                 |  |
| Gate Source Breakdown Voltage | $V_{(BR)GSS}$ | 15    |     | V            | $I_G = 1 \mu\text{A}$ , $V_{DS} = 0\text{V}$    |  |
| Gate Reverse Current          | $I_{GSS}$     |       | 20  | nA           | $V_{GS} = 15\text{V}$ , $V_{DS} = 0\text{V}$    |  |
| Gate Source Cutoff Voltage    | $V_{GS(OFF)}$ | 1     | 5   | V            | $I_D = -1 \mu\text{A}$ , $V_{DS} = -10\text{V}$ |  |

### Dynamic Electrical Characteristics

|                            |              |    |     |          |   |                     |
|----------------------------|--------------|----|-----|----------|---|---------------------|
| Drain Source ON Resistance | $r_{ds(on)}$ | 70 | 200 | $\Omega$ | $V_{GS} = 0\text{V}$ , $I_D = 0\text{A}$  | $f = 1 \text{ kHz}$ |
| Drain Gate Capacitance     | $C_{dg}$     |    | 25  | pF       | $V_{DG} = 10\text{V}$ , $I_S = 0\text{A}$ | $f = 1 \text{ MHz}$ |
| Source Gate Capacitance    | $C_{sg}$     |    | 15  | pF       | $V_{GS} = 10\text{V}$ , $I_D = 0\text{A}$ | $f = 1 \text{ MHz}$ |

### TO-18 Package

Dimensions in Inches (mm)

### Pin Configuration

1 Source, 2 Gate &amp; Case, 3 Drain

