

VCR11N

N-Channel Silicon Voltage Controlled Resistor JFET

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

Absolute maximum ratings at $T_A = 25^\circ\text{C}$.

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

At 25°C free air temperature:

Static Electrical Characteristics

		VCR11N		Process NJ26		
		Min	Max	Unit	Test Conditions	
Gate Source Breakdown Voltage	$V_{(BR)GSS}$	- 25		V	$I_G = -1\ \mu\text{A}, V_{DS} = 0\text{V}$	
Gate Reverse Current	I_{GSS}		- 0.2	nA	$V_{GS} = -15\text{V}, V_{DS} = 0\text{V}$	
Gate Source Cutoff Voltage	$V_{GS(OFF)}$	- 8	- 12	V	$I_D = 1\ \mu\text{A}, V_{DS} = -10\text{V}$	
Static Drain Source ON Resistance Ratio	$r_{DS(MIN)}$.95	1		$V_{DS} = 100\text{mV}, r_{DS1} = 200\Omega$	
	$r_{DS(MAX)}$.95	1		$V_{GS1} = V_{GS2}, r_{DS1} = 2\text{k}\Omega$	

Dynamic Electrical Characteristics

Drain Source ON Resistance	$r_{ds(on)}$	70	200	Ω	$V_{GS} = 0\text{V}, I_D = 0\text{A}$	$f = 1\text{kHz}$
Drain Gate Capacitance	C_{dg}		7.5	pF	$V_{DG} = 10\text{V}, I_S = 0\text{A}$	$f = 1\text{MHz}$
Source Gate Capacitance	C_{sg}		7.5	pF	$V_{GS} = 10\text{V}, I_D = 0\text{A}$	$f = 1\text{MHz}$

TO-71 Package

Dimensions in Inches (mm)

Pin Configuration

1 Source, 2 Drain 1, 3 Gate 1,
5 Source 2, 6 Drain 2, 7 Gate 2

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