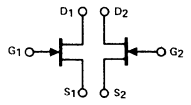
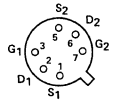
voltage-controlled resistor FETs *designed for . . .*

Siliconix

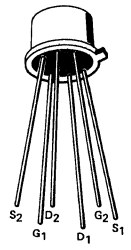
- **Small Signal Attenuators**
- **Filters**
- **Amplifier Gain Control**
- **Oscillator Amplitude Control**

TO-71
See Section 6





Bottom View



ABSOLUTE MAXIMUM RATING (25°C)

Gate-Drain or Gate-Source Voltage . . . . . 25 V
Gate Current . . . . . 10 mA
Total Device Dissipation at T_A = 25°C
(Derate at 2.0 mW/°C to 175°C) . . . . . 300 mW
Storage Temperature Range . . . . . −55 to +175°C

ELECTRICAL CHARACTERISTICS (25°C unless otherwise noted)

	Characteristic		VCR11N Min	VCR11N Max	Unit	Test Conditions	
1	I_{GSS}	Gate Reverse Current		-0 2	nA	V_{GS} = -15 V, V_{DS} = 0	
2	BV_{GSS}	Gate-Source Breakdown Voltage	-25		V	I_G = -1 μA, V_{DS} = 0	
3	$V_{GS(off)}$	Gate-Source Cutoff Voltage	-8	-12		I_D = 1 μA, V_{DS} = 10 V	
4	$r_{ds(on)}$	Drain Source ON Resistance	100	200	Ω	V_{GS} = 0, I_D = 0	f = 1 kHz
5	C_{dgo}	Drain-Gate Capacitance		8	pF	V_{GD} = -10 V, I_S = 0	f = 1 MHz
6	C_{sgo}	Source-Gate Capacitance		8		V_{GS} = -10 V, I_D = 0	
7	r_{DSmin}/r_{DSmax}		95	1		V_{DS} = 100 mV	r_{DS1} = 200Ω
			95	1		$V_{GS1} = V_{GS2}$	r_{DS1} = 2kΩ

Note
1 V_{GS1} + Control Voltage necessary to force r_{DS} to 200Ω or 2KΩ

NSH*
*Contact factory for geometry information.