

2N5018 2N5019

p-channel JFETs designed for . . .

- Analog Switches
- Commutators
- Choppers

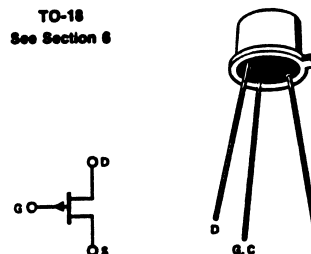
BENEFITS

- Low Insertion Loss
 $r_{DS(on)} < 75 \Omega$ (2N5018)
- No Offset or Error Voltages Generated by Closed Switch
Purely Resistive

*ABSOLUTE MAXIMUM RATINGS (25°C)

Reverse Gate-Drain or Gate-Source Voltage (Note 1)	30 V
Gate Current	50 mA
Total Device Dissipation, Free-Air (Derate 3 mW/°C)	500 mW
Storage Temperature Range	-65 to +200°C
Lead Temperature (1/16" from case for 60 seconds)	300°C

TO-18
See Section 6



*ELECTRICAL CHARACTERISTICS (25°C unless otherwise noted)

	Characteristic	2N5018		2N5019		Unit	Test Conditions
		Min	Max	Min	Max		
1	BV _{GSS} Gate-Source Breakdown Voltage	30		30		V	I _G = 1 μ A, V _{DS} = 0
2	I _{GSS} Gate Reverse Current		2		2	nA	V _{GS} = 15 V, V _{DS} = 0
3	I _{D(off)} Drain Cutoff Current		-10		-10	μ A	V _{DS} = -15 V, V _{GS} = 12 V (2N5018)
4			-10		-10	μ A	V _{GS} = 7 V (2N5019)
5	I _{DGO} Drain Reverse Current		-2		-2	nA	V _{DG} = -15 V, I _S = 0
6			-3		-3	μ A	
7	V _{GS(off)} Gate-Source Cutoff Voltage		10		5	V	V _{DS} = -15 V, I _D = -1 μ A
8	I _{DSS} Saturation Drain Current	-10		-5		mA	V _{DS} = -20 V, V _{GS} = 0
9	V _{DS(on)} Drain-Source ON Voltage		-0.5		-0.5	V	V _{GS} = 0, I _D = -6 mA (2N5018), I _D = -3 mA (2N5019)
10	r _{DS(on)} Static Drain-Source ON Resistance		75		150	Ω	I _D = -1 mA, V _{GS} = 0
11	r _{ds(on)} Drain-Source ON Resistance		75		150	Ω	I _D = 0, V _{GS} = 0
12	C _{iss} Common-Source Input Capacitance		45		45	pF	V _{DS} = -15 V, V _{GS} = 0
13	C _{rss} Common-Source Reverse Transfer Capacitance		10		10	pF	V _{DS} = 0, V _{GS} = 12 V (2N5018), V _{GS} = 7 V (2N5019)
14	t _{d(on)} Turn-ON Delay Time		15		15	ns	V _{DD} = -6 V, V _{GS(on)} = 0
15	t _r Rise Time		20		75	ns	V _{GS(off)} = 12 V, I _{D(on)} = -6 mA, R _L = 910 Ω
16	t _{d(off)} Turn-OFF Delay Time		15		25	ns	2N5018 7 V, -3 mA, 1.8K Ω
17	t _f Fall Time		50		100	ns	2N5019

*JEDEC registered data.

NOTE:

- Due to symmetrical geometry these units may be operated with source and drain leads interchanged.

