

3875081 G E SOLID STATE

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T-35-25

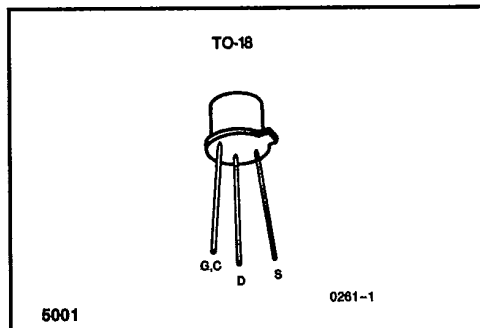


U200-U202 N-Channel JFET Switch

FEATURES

- Low Insertion Loss
- Good OFF Isolation

PIN CONFIGURATION



APPLICATIONS

- Analog Switches
- Commutators
- Choppers

ABSOLUTE MAXIMUM RATINGS

($T_A = 25^\circ\text{C}$ unless otherwise noted)
 Gate-Drain or Gate-Source Voltage -30V
 Gate Current 50mA
 Storage Temperature Range -65°C to $+200^\circ\text{C}$
 Operating Temperature Range -55°C to $+150^\circ\text{C}$
 Lead Temperature (Soldering, 10sec) $+300^\circ\text{C}$
 Total Device Dissipation ($T_C = 25^\circ\text{C}$) 1.8W
 Derate above 25°C 10mW/ $^\circ\text{C}$

NOTE: Stresses above those listed under "Absolute Maximum Ratings" may cause permanent damage to the device. These are stress ratings only and functional operation of the device at these or any other conditions above those indicated in the operational sections of the specifications is not implied. Exposure to absolute maximum rating conditions for extended periods may affect device reliability.

ORDERING INFORMATION

TO-18
U200
U201
U202

ELECTRICAL CHARACTERISTICS ($T_A = 25^\circ\text{C}$ unless otherwise specified)

Symbol	Parameter	Test Conditions	U200		U201		U202		Units
			Min	Max	Min	Max	Min	Max	
I_{GSS}	Gate Reverse Current	$V_{GS} = -20V, V_{DS} = 0$		-1		-1		-1	nA
		$T_A = 150^\circ\text{C}$		-1		-1		-1	μA
BV_{GSS}	Gate-Source Breakdown Voltage	$I_G = -1\mu\text{A}, V_{DS} = 0$	-30		-30		-30		V
$V_{GS(off)}$	Gate-Source Cutoff Voltage	$V_{DS} = 20V, I_D = 10\text{nA}$	-0.5	-3	-1.5	-5	-3.5	-10	
$I_{D(off)}$	Drain Cutoff Current	$V_{DS} = 10V, V_{GS} = -12V$		1		1		1	nA
		$T_A = 150^\circ\text{C}$		1		1		1	μA
I_{DSS}	Saturation Drain Current (Note 1)	$V_{DS} = 20V, V_{GS} = 0$	3	25	15	75	30	150	mA
$r_{ds(on)}$	Drain-Source ON Resistance	$V_{GS} = 0, I_D = 0$		150		75		50	ohm
C_{iss}	Common-Source Input Capacitance (Note 2)	$V_{DS} = 20V, V_{GS} = 0$		30		30		30	pF
C_{rss}	Common-Source Reverse Transfer Capacitance (Note 2)	$V_{DS} = 0, V_{GS} = -12V$		8		8		8	

NOTES: 1. Pulse test required, pulsewidth = 300 μs , duty cycle $\leq 3\%$.

2. For design reference only, not 100% tested.

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NOTE: All typical values have been characterized but are not tested.