n-channel JFET
designed for . . .

- **Analog Switches**
- **Choppers**
- **Commutators**

Performance Curves NH
See Section 4

BENEFITS

- Low Insertion Loss, No Offset Voltage
  $R_{DS(on)} < 220\ \Omega$
- Short Switching Aperture Times
  $C_{rss} < 1.5$ pF
  $t_{(on)} + t_{(off)} < 50$ ns Typical

*ABSOLUTE MAXIMUM RATINGS (25°C)

Gate-Drain or Gate-Source Voltage . . . . . −30 V
Gate Current . . . . . 10 mA
Total Device Dissipation
(25°C Free-Air Temperature) . . . . . 300 mW
Power Derating . . . . . 1.7 mW/°C
Storage Temperature Range . . . . . −55 to +200°C
Operating Temperature Range . . . . . −55 to +175°C
Lead Temperature
(1/16" from case for 10 seconds) . . . . . .300°C

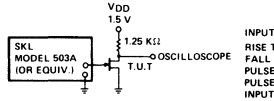
TO-72
See Section 5

*ELECTRICAL CHARACTERISTICS (25°C unless otherwise noted)

		Characteristic		Min	Typ	Max	Unit	Test Conditions	
1		I_{GSS}	Gate Reverse Current			-0.1	nA	V_{GS} = -20 V, V_{DS} = 0	
2		$V_{GS(off)}$	Gate-Source Cutoff Voltage	-4		-6.0	V	V_{DS} = 10 V, I_D = 10 nA	
3		BV_{GSS}	Gate-Source Breakdown Voltage	-30				I_G = -1 μA, V_{DS} = 0	
4	STATIC	I_{DSS}	Saturation Drain Current (Note 1)	2.0			mA	V_{DS} = 20 V, V_{GS} = 0	
5		$I_{D(off)}$	Drain Cutoff Current			1.0	nA	V_{DS} = 10 V, V_{GS} = -7 V	
6						2.0	μA		T_A = 150°C
7		$r_{DS(on)}$	Static Drain-Source ON Resistance			220	Ω	$V_{DS} \leq 0.1$ V, V_{GS} = 0	
8		$V_{DS(on)}$	Drain-Source ON Voltage			0.25	V	I_D = 1 mA, V_{GS} = 0	
9		I_{DGO}	Drain Reverse Current			0.1	nA	V_{DG} = 20 V, I_S = 0	
10						0.2	μA		T_A = 150°C
11		$r_{ds(on)}$	Drain-Source ON Resistance			220	Ω	V_{GS} = 0, I_D = 0	f = 1 kHz
12	DYN	C_{iss}	Common-Source Input Capacitance		3.1	6.0	pF	V_{DS} = 20 V, V_{GS} = 0	f = 1 MHz
13		C_{rss}	Common-Source Reverse Transfer Capacitance		0.8	1.5		V_{DS} = 0, V_{GS} = -7 V	
14		$t_{d(on)}$	Turn ON Delay Time		3.0	20	ns	V_{DD} = 1.5 V $I_{D(on)}$ = 1.0 mA $V_{GS(on)}$ = 0 $V_{GS(off)}$ = -6 V R_L = 1.25k Ω	See Circuit Below
15	SWITCH	t_r	Rise Time		10.0	100			
16		t_{off}	Turn OFF Time		30.0	100			
17		$t_{d(off)}$	Turn OFF Delay Time (Note 2)		10.0				
18		t_f	Fall Time (Note 2)		20.0				

*JEDEC registered parameters unless otherwise noted (apply to min/max only).

NOTES:
1. Pulse test duration ≤ 2 ms.
2. Non-JEDEC registered parameters:
   $t_{d(off)} + t_f = t_{off}$.



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