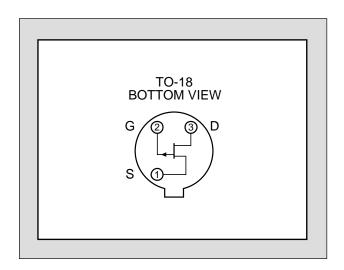


Linear Integrated Systems

FEATURES					
DIRECT REPLACEMENT FOR SILICONIX 2N5018					
ZERO OFFSET VOLTAGE					
LOW ON RESISTANCE 75Ω					
ABSOLUTE MAXIMUM RATINGS ¹					
@ 25 °C (unless otherwise stated)					
Maximum Temperatures					
Storage Temperature	-55 to 200°C				
Junction Operating Temperature -55 to 200°C					
Maximum Power Dissipation					
Continuous Power Dissipation	500mW				
Maximum Currents					
Gate Current	-50mA				
Maximum Voltages					
Gate to Drain	30V				
Gate to Source	30V				

2N5018 SERIES

SINGLE P-CHANNEL JFET SWITCH



STATIC ELECTRICAL CHARACTERISTICS @25 °C (unless otherwise stated)

SYM.	CHARACTERISTIC	TYP	2N5	018	2N5	019	UNITS	CONDITIONS		
STW.	CHARACTERISTIC	MIN MAX MIN		MAX	UNITS	CONDITIONS				
BV _{GSS}	Gate to Source Breakdown Voltage		30		30			$I_{G} = 1\mu A, V_{DS} = 0V$		
$V_{GS(off)}$	Gate to Source Cutoff Voltage			10		5	V	$V_{DS} = -15V, I_{D} = -1\mu A$		
V	Drain to Source On Voltage			-0.5			V	ď	\ \ \	V_{GS} = 0V, I_D = -6mA
$V_{DS(on)}$	Diam to Source On Voltage					-0.5		V_{GS} = 0V, I_D = -3mA		
I _{DSS}	Drain to Source Saturation Current ²		-10		-5		mA	$V_{DS} = -20V, V_{GS} = 0V$		
I_{GSS}	Gate Leakage Current			2		2	nA	$V_{GS} = 15V, V_{DS} = 0V$		
1	Drain Cutoff Current			-10		-10	IIA	V _{DS} = -15V, V _{GS} = 12V		
I _{D(off)}	Diam Cuton Current			-10		-10	μA	$V_{DS} = -15V, V_{GS} = 7V$		
I_{DGO}	Drain Reverse Current			-2		-2	nA	$V_{DG} = -15V, I_{S} = 0A$		
r _{DS(on)}	Drain to Source On Resistance			75		150	Ω	I_D = -1mA, V_{GS} = 0V		

DYNAMIC ELECTRICAL CHARACTERISTICS @25 °C (unless otherwise stated)

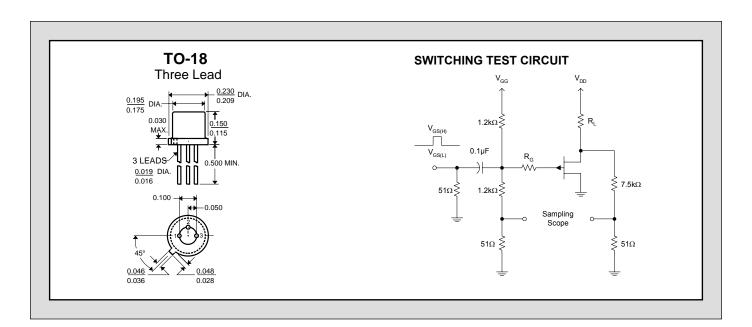
SYM.	CHARACTERISTIC	ТҮР	2N5018		2N5019		UNITS	CONDITIONS
STW.			MIN	MAX	MIN	MAX	UNITS	CONDITIONS
r _{ds(on)}	Drain to Source On Resistance			75		150	Ω	$I_D = 0A$, $V_{GS} = 0V$ f = 1kHz
C _{iss}	Input Capacitance			45		45		V_{DS} = -15V, V_{GS} = 0V f = 1MHz
	Reverse Transfer Capacitance			10	D p	pF	$V_{DS} = 0V$, $V_{GS} = 12V$ f = 1MHz	
C _{rss}	Neverse Transier Capacitance					10		$V_{DS} = 0V$, $V_{GS} = 7V$ f = 1MHz

SWITCHING CHARACTERISTICS (max)

SYM.	CHARACTERISTIC	2N5018	2N5019	UNITS
t _{d(on)}	Turn On Time	15	15	
tr	Tuili On Tille	20	75	no
$t_{d(off)}$	Turn Off Time	15	25	ns
t _f	Turr On Time	50	100	

SWITCHING CIRCUIT CHARACTERISTICS

SYM.	2N5018	2N5019
V_{DD}	-6V	-6V
V_{GG}	12V	8V
R_L	910Ω	1.8kΩ
R_{G}	220Ω	390Ω
I _{D(on)}	-6mA	-3mA
$V_{GS(H)}$	0V	0V
$V_{GS(L)}$	12V	7V



NOTES

- Absolute maximum ratings are limiting values above which serviceability may be impaired. 1.
- Pulse test: PW ≤ 300µs, Duty Cycle ≤ 3%

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