LINEAR SYSTEMS

Linear Integrated Systems

2N4351

N-CHANNEL MOSFET ENHANCEMENT MODE

FEATURES	
DIRECT REPLACEMENT FOR INTERSIL 2N4351	
HIGH DRAIN CURRENT	I_D = 100mA
HIGH GAIN	g_{fs} = 1000µS
ABSOLUTE MAXIMUM RATINGS[1] @ 25 °C (unless otherwise stated)	
Maximum Temperatures	
Storage Temperature	-65 to +200 °C
Operating Junction Temperature	-55 to +150 °C
Maximum Power Dissipation	
Continuous Power Dissipation	375mW
Maximum Current	
Drain to Source	100mA
Maximum Voltages	
Drain to Body	25V
Drain to Source	25V
Peak Gate to Source[2]	±125V

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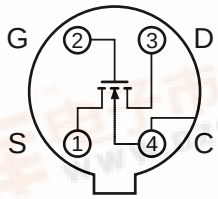
BOTTOM VIEW



* Body tied to Case.

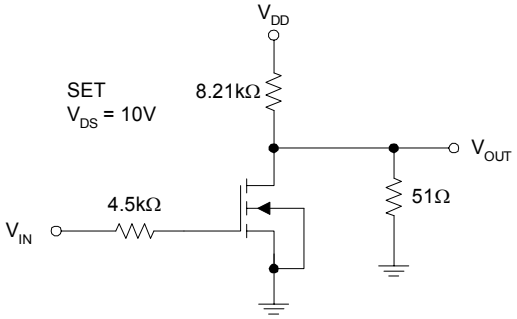
ELECTRICAL CHARACTERISTICS @ 25 °C (unless otherwise stated) (V_{SB} = 0V unless otherwise stated)

SYMBOL	CHARACTERISTIC	MIN	TYP	MAX	UNITS	CONDITIONS
BV_{DSS}	Drain to Source Breakdown Voltage	25			V	I_D = 10µA, V_{GS} = 0V
$V_{DS(on)}$	Drain to Source "On" Voltage			1		I_D = 2mA, V_{GS} = 10V
$V_{GS(th)}$	Gate to Source Threshold Voltage	1		5		V_{DS} = 10V, I_D = 10µA
I_{GSS}	Gate Leakage Current			10	pA	V_{GS} = ±30V, V_{DS} = 0V
I_{DSS}	Drain Leakage Current "Off"			10	nA	V_{DS} = 10V, V_{GS} = 0V
$I_{D(on)}$	Drain Current "On"	3			mA	V_{GS} = 10V, V_{DS} = 10V
g_{fs}	Forward Transconductance	1000			µS	V_{DS} = 10V, I_D = 2mA, *f* = 1MHz
$r_{DS(on)}$	Drain to Source "On" Resistance			300	Ω	V_{GS} = 10V, I_D = 0A, *f* = 1kHz
C_{rss}	Reverse Transfer Capacitance			1.3	pF	V_{DS} = 0V, V_{GS} = 0V, *f* = 140kHz
C_{iss}	Input Capacitance			5.0		V_{DS} = 10V, V_{GS} = 0V, *f* = 140kHz
C_{db}	Drain to Body Capacitance			5.0		V_{DB} = 10V, *f* = 140kHz

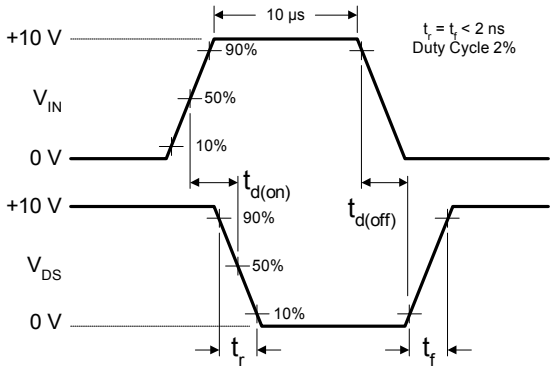
SWITCHING CHARACTERISTICS

SYMBOL	CHARACTERISTIC	MAX	UNITS
$t_{d(on)}$	Turn On Delay Time	45	ns
t_r	Turn On Rise Time	65	
$t_{d(off)}$	Turn Off Delay Time	60	
t_f	Turn Off Fall Time	100	

SWITCHING TEST CIRCUIT



TIMING WAVEFORMS



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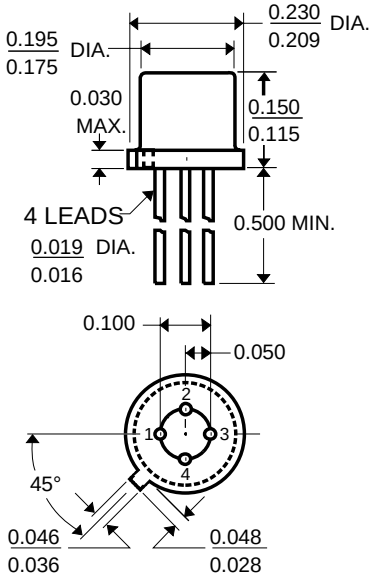
Four Lead



1. Absolute maximum ratings are limiting values above which serviceability may be impaired.
2. Device must not be tested at ±125V more than once or longer than 300ms.