

## The 2N4351 is an enhancement mode N-Channel Mosfet

The 2N4351 is an enhancement mode N-Channel Mosfet designed for use as a General Purpose amplifier or switch

The hermetically sealed TO-72 package is well suited for high reliability and harsh environment applications.

(See Packaging Information).

### 2N4351 Features:

- Low ON Resistance
- Low Capacitance
- High Gain
- High Gate Breakdown Voltage
- Low Threshold Voltage

### FEATURES

DIRECT REPLACEMENT FOR INTERSIL 2N4351

HIGH DRAIN CURRENT	$I_D = 100\text{mA}$
HIGH GAIN	$g_{fs} = 1000\mu\text{S}$

**ABSOLUTE MAXIMUM RATINGS**  
@ 25°C (unless otherwise noted)

### Maximum Temperatures

Storage Temperature	-65°C to +200°C
Operating Junction Temperature	-55°C to +150°C

### Maximum Power Dissipation

Continuous Power Dissipation	375mW
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### MAXIMUM CURRENT

Drain to Source (Note 1)	100mA
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### MAXIMUM VOLTAGES

Drain to Body	25V
Drain to Source	25V
Peak Gate to Source (Note 2)	±125V

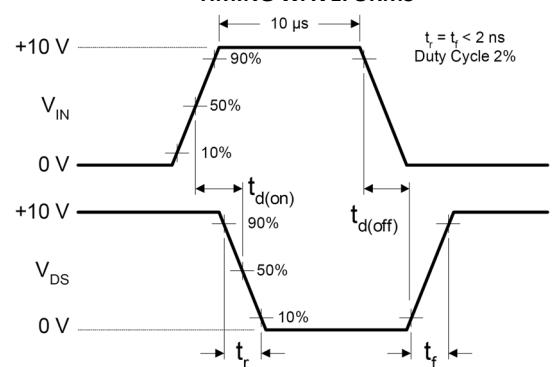
### 2N4351 ELECTRICAL CHARACTERISTICS @ 25°C (unless otherwise noted)

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

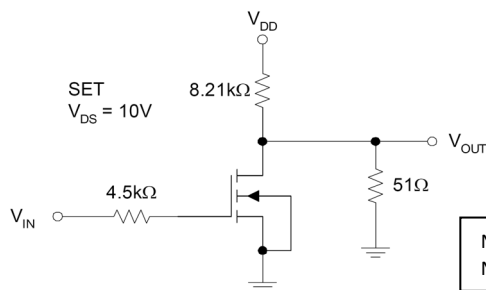
### SWITCHING CHARACTERISTICS

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	

### TIMING WAVEFORMS



### SWITCHING TEST CIRCUIT



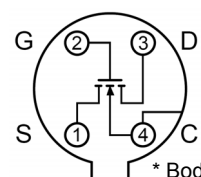
Note 1 - Absolute maximum ratings are limiting values above which 2N4351 serviceability may be impaired.  
Note 2 - Device must not be tested at ±125V more than once or longer than 300ms.

Micross Components Europe

Available Packages:

2N4351 in TO-72  
2N4351 in bare die.

TO-72 (Bottom View)



\* Body tied to case

Tel: +44 1603 788967

Email: [chipcomponents@micross.com](mailto:chipcomponents@micross.com)

Web: <http://www.micross.com/distribution>

Please contact Micross for full package and die dimensions

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