

## 2N6449, 2N6450

## N-Channel Silicon Junction Field-Effect Transistor

## • High Voltage

Absolute maximum ratings at  $T_A = 25^\circ\text{C}$ 

	2N6449	2N6450
Reverse Gate Source Voltage	- 300 V	- 200 V
Reverse Gate Drain Voltage	- 300 V	- 200 V
Continuous Forward Gate Current	10 mA	10 mA
Continuous Device Power Dissipation	800 mW	800 mW
Power Derating	6.4 mW/°C	6.4 mW/°C

At 25°C free air temperature:

## Static Electrical Characteristics

		2N6449		2N6450		Process NJ42		
		Min	Max	Min	Max	Unit	Test Conditions	
Gate Source Breakdown Voltage	$V_{(BR)GSS}$	- 300		- 200		V	$I_G = - 10 \mu\text{A}, V_{DS} = \emptyset\text{V}$	
Gate Reverse Current	$I_{GSS}$		- 100			nA	$V_{GS} = - 150\text{V}, V_{DS} = \emptyset\text{V}$	
					- 100	nA	$V_{GS} = - 100\text{V}, V_{DS} = \emptyset\text{V}$	
			- 100			$\mu\text{A}$	$V_{GS} = - 150\text{V}, V_{DS} = \emptyset\text{V}$	$T_A = 150^\circ\text{C}$
					- 100	$\mu\text{A}$	$V_{GS} = - 100\text{V}, V_{DS} = \emptyset\text{V}$	$T_A = 150^\circ\text{C}$
Gate Source Cutoff Voltage	$V_{GS(OFF)}$	- 2	- 15	- 2	- 15	V	$V_{DS} = 30\text{V}, I_D = 4 \text{ nA}$	
Drain Saturation Current (Pulsed)	$I_{DSS}$	2	10	2	10	mA	$V_{DS} = 30\text{V}, V_{GS} = \emptyset\text{V}$	

## Dynamic Electrical Characteristics

Common Source Forward Transfer Admittance	$Y_{fs}$	0.5	3	0.5	3	mS	$V_{DS} = 30\text{V}, V_{GS} = \emptyset\text{V}$	$f = 1 \text{ kHz}$
Common Source Output Conductance	$Y_{os}$		100		100	$\mu\text{S}$	$V_{DS} = 30\text{V}, V_{GS} = \emptyset\text{V}$	$f = 1 \text{ kHz}$
Common Source Input Capacitance	$C_{iss}$		20		20	pF	$V_{DS} = 30\text{V}, V_{GS} = \emptyset\text{V}$	$f = 1 \text{ MHz}$
Common Source Reverse Transfer Capacitance	$C_{rss}$		2.5		2.5	pF	$V_{DS} = 30\text{V}, V_{GS} = \emptyset\text{V}$	$f = 1 \text{ MHz}$

## TO-39 Package

Dimensions in Inches (mm)

## Pin Configuration

1 Source, 2 Drain, 3 Gate &amp; Case



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