

# New Jersey Semi-Conductor Products, Inc.

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2N5653  
 2N5654

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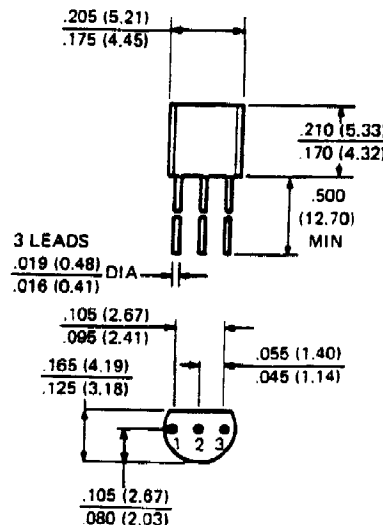
## MAXIMUM RATINGS (T<sub>A</sub>=25°C)

## N CHANNEL SILICON

	SYMBOL		UNIT
Drain-Gate Voltage	V <sub>GD</sub>	30	V
Gate-Source Voltage	V <sub>GS</sub>	30	V
Gate Current	I <sub>G</sub>	10	mA
Power Dissipation	P <sub>D</sub>	625	mW
Operating and Storage Junction Temperature	T <sub>J</sub> , T <sub>stg</sub>	-65 to +150	°C

## ELECTRICAL CHARACTERISTICS (T<sub>A</sub>=25°C unless otherwise noted)

SYMBOL	TEST CONDITIONS	2N5653		2N5654		UNIT
		MIN	MAX	MIN	MAX	
I <sub>GSS</sub>	V <sub>GS</sub> =15V		1.0		1.0	nA
I <sub>GSS</sub>	V <sub>GS</sub> =15V, T <sub>A</sub> =100°C		1.0		1.0	μA
I <sub>DSS</sub>	V <sub>DS</sub> =20V	40	-	15	-	mA
I <sub>D</sub> (OFF)	V <sub>DS</sub> =15V, V <sub>GS</sub> =12V		1.0		-	nA
I <sub>D</sub> (OFF)	V <sub>DS</sub> =15V, V <sub>GS</sub> =8.0V		-		1.0	nA
I <sub>D</sub> (OFF)	V <sub>DS</sub> =15V, V <sub>GS</sub> =12V, T <sub>A</sub> =100°C		1.0		-	μA
I <sub>D</sub> (OFF)	V <sub>DS</sub> =15V, V <sub>GS</sub> =8.0V, T <sub>A</sub> =100°C		-		1.0	μA
BV <sub>GSS</sub>	I <sub>G</sub> =10μA	30		30		V
V <sub>DS</sub> (ON)	I <sub>D</sub> =10mA		0.75		-	V
V <sub>DS</sub> (ON)	I <sub>D</sub> =5.0mA		-		0.75	V
r <sub>DS</sub> (ON)	I <sub>D</sub> =1.0mA, V <sub>GS</sub> =0		50		100	Ω
r <sub>ds</sub> (ON)	V <sub>GS</sub> =0, I <sub>D</sub> =0, f=1.0kHz		50		100	Ω
C <sub>iss</sub>	V <sub>DS</sub> =12V, V <sub>GS</sub> =0, f=1.0MHz		10		10	pF
C <sub>rss</sub>	V <sub>GS</sub> =12V, V <sub>DS</sub> =0, f=1.0MHz		3.5		-	pF
C <sub>rss</sub>	V <sub>GS</sub> =8.0V, V <sub>DS</sub> =0, f=1.0MHz		-		3.5	pF
t <sub>ON</sub>	I <sub>D</sub> (ON)=10mA		9.0		-	ns
t <sub>ON</sub>	I <sub>D</sub> (ON)=5.0mA		-		14	ns
t <sub>OFF</sub>	V <sub>GS</sub> (OFF)=10V		15		-	ns
t <sub>OFF</sub>	V <sub>GS</sub> (OFF)=5.0V		-		30	ns



### LEAD CODE:

1. DRAIN
2. SOURCE
3. GATE

NJ Semi-Conductors reserves the right to change test conditions, parameters limits and package dimensions without notice information furnished by NJ Semi-Conductors is believed to be both accurate and reliable at the time of going to press. However NJ Semi-Conductors assumes no responsibility for any errors or omissions discovered in its use. NJ Semi-Conductors encourages customers to verify that datasheets are current before placing orders.

**Quality Semi-Conductors**

