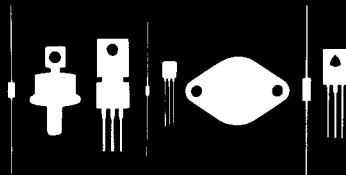


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145 Adams Avenue
Hauppauge, New York 11788



2N5653
2N5654

N CHANNEL SILICON
FIELD EFFECT TRANSISTOR

JEDEC TO-92 CASE*

DESCRIPTION

The CENTRAL SEMICONDUCTOR 2N5653 series types are Silicon N-Channel Field Effect Transistors designed for switching applications.

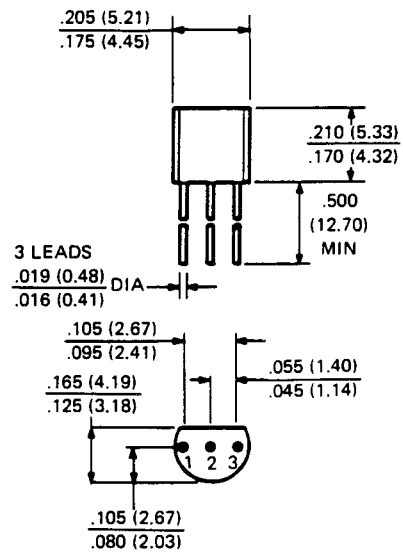
MAXIMUM RATINGS ($T_A=25^\circ\text{C}$)

	SYMBOL		UNIT
Drain-Gate Voltage	V_{GD}	30	V
Gate-Source Voltage	V_{GS}	30	V
Gate Current	I_G	10	mA
Power Dissipation	P_D	625	mW
Operating and Storage Junction Temperature	T_J, T_{stg}	-65 to +150	$^\circ\text{C}$

ELECTRICAL CHARACTERISTICS ($T_A=25^\circ\text{C}$ unless otherwise noted)

SYMBOL	TEST CONDITIONS	2N5653		2N5654		UNIT
		MIN	MAX	MIN	MAX	
I_{GSS}	$V_{GS}=15\text{V}$		1.0		1.0	nA
I_{GSS}	$V_{GS}=15\text{V}, T_A=100^\circ\text{C}$		1.0		1.0	μA
I_{DSS}	$V_{DS}=20\text{V}$	40	-	15	-	mA
$I_D(\text{OFF})$	$V_{DS}=15\text{V}, V_{GS}=12\text{V}$		1.0		-	nA
$I_D(\text{OFF})$	$V_{DS}=15\text{V}, V_{GS}=8.0\text{V}$		-		1.0	nA
$I_D(\text{OFF})$	$V_{DS}=15\text{V}, V_{GS}=12\text{V}, T_A=100^\circ\text{C}$		1.0		-	μA
$I_D(\text{OFF})$	$V_{DS}=15\text{V}, V_{GS}=8.0\text{V}, T_A=100^\circ\text{C}$		-		1.0	μA
BV_{GSS}	$I_G=10\mu\text{A}$	30		30		V
$V_{DS}(\text{ON})$	$I_D=10\text{mA}$		0.75		-	V
$V_{DS}(\text{ON})$	$I_D=5.0\text{mA}$		-		0.75	V
$r_{DS}(\text{ON})$	$I_D=1.0\text{mA}, V_{GS}=0$		50		100	Ω
$r_{ds}(\text{ON})$	$V_{GS}=0, I_D=0, f=1.0\text{kHz}$		50		100	Ω
C_{iss}	$V_{DS}=12\text{V}, V_{GS}=0, f=1.0\text{MHz}$		10		10	pF
C_{rss}	$V_{GS}=12\text{V}, V_{DS}=0, f=1.0\text{MHz}$		3.5		-	pF
C_{rss}	$V_{GS}=8.0\text{V}, V_{DS}=0, f=1.0\text{MHz}$		-		3.5	pF
t_{ON}	$I_D(\text{ON})=10\text{mA}$		9.0		-	ns
t_{ON}	$I_D(\text{ON})=5.0\text{mA}$		-		14	ns
t_{OFF}	$V_{GS}(\text{OFF})=10\text{V}$		15		-	ns
t_{OFF}	$V_{GS}(\text{OFF})=5.0\text{V}$		-		30	ns

*See Reverse For Outline Drawing



LEAD CODE:

1. DRAIN
2. SOURCE
3. GATE

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