NTE452
Silicon N–Channel JFET Transistor
VHF Amplifier, Mixer
TO72 Type Package

Description:

The NTE452 is a silicon, N–channel junction field effect transistor (JFET) in a TO72 type package designed to be used in the depletion mode in VHF/UHF amplifiers.

Absolute Maximum Ratings:

Drain–Source Voltage, V_{DS} 30V
Drain–Gate Voltage, V_{DG} 35V
Gate–Source Voltage, V_{GS} 30V
Gate Current, I_G 10mA
Total Device Dissipation (T_A = +25°C), P_D 300mW
        Derate Above 25°C . . . . 1.71mW/°C
Operating Junction Temperature Range, T_J . . . . −65° to +175°C
Storage Temperature Range, T_{stg} . . . . −65° to +175°C

Electrical Characteristics: (T_A = +25°C unless otherwise specified)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
OFF Characteristics						
Gate–Source Breakdown Voltage	$V_{(BR)GSS}$	I_G = 1°s, V_{DS} = 0	30	–	–	V
Gate Reverse Current	I_{GSS}	V_{GS} = 20V, V_{DS} = 0	–	–	100	pA
		V_{GS} = 20V, V_{DS} = 0, T_A = +150°C	–	–	200	pA
Gate–Source Cutoff Voltage	$V_{GS(off)}$	I_D = 1nA, V_{DS} = 15V	–	–	6	V
Gate–Source Voltage	V_{GS}	I_D = 0.5mA, V_{DS} = 15V	1.0	–	5.5	V
Gate–Source Forward Voltage	$V_{GS(f)}$	I_G = 1mA, V_{DS} = 0	–	–	1.0	V
ON Characteristics (Note 1)						
Zero–Gate Voltage Drain Current	I_{DSS}	V_{DS} = 15V, V_{GS} = 0	5	–	15	mA
Small–Signal Characteristics						
Forward Transfer Admittance	$|Y_{fs}|$	V_{DS} = 15V, V_{GS} = 0, f = 1kHz, Note 1	4500	–	7500	°mhos
Real Part of Forward Transfer Admittance	$Y_{fs(real)}$	V_{DS} = 15V, V_{GS} = 0, f = 400MHz	4000	–	–	°mhos

Note 1. Pulse Test: Pulse Width ≤ 300°s, Duty Cycle ≤ 1%.

Electrical Characteristics (Cont'd): (T_A = +25°C unless otherwise specified)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Small−Signal Characteristics (Cont'd)						
Real Part of Input Admittance	$Y_{is(real)}$	V_{DS} = 15V, V_{GS} = 0, f = 100MHz	–	–	100	°mhos
		V_{DS} = 15V, V_{GS} = 0, f = 400MHz	–	–	1000	°mhos
Output Admittance	$|Y_{os}|$	V_{DS} = 15V, V_{GS} = 0, f = 1kHz	–	–	50	°mhos
Real Part of Output Admittance	$Y_{os(real)}$	V_{DS} = 15V, V_{GS} = 0, f = 100MHz	–	–	75	°mhos
		V_{DS} = 15V, V_{GS} = 0, f = 400MHz	–	–	100	°mhos
Imaginary Part of Input Admittance	$Y_{is(imag)}$	V_{DS} = 15V, V_{GS} = 0, f = 100MHz	–	–	2500	°mhos
		V_{DS} = 15V, V_{GS} = 0, f = 400MHz	–	–	10k	°mhos
Imaginary Part of Output Admittance	$Y_{os(imag)}$	V_{DS} = 15V, V_{GS} = 0, f = 100MHz	–	–	1000	°mhos
		V_{DS} = 15V, V_{GS} = 0, f = 400MHz	–	–	4000	°mhos
Input Capacitance	C_{iss}	V_{DS} = 15V, V_{GS} = 0, f = 1MHz	–	–	4.0	pF
Reverse Transfer Capacitance	C_{rss}	V_{DS} = 15V, V_{GS} = 0, f = 1MHz	–	–	0.8	pF
Common−Source Output Capacitance	C_{oss}	V_{DS} = 15V, V_{GS} = 0, f = 1MHz	–	–	2.0	pF
Functional Characteristics						
Noise Figure	NF	V_{DS} = 15V, I_D = 5mA, R_g 1000≤, f = 100MHz	–	–	2.0	dB
		V_{DS} = 15V, I_D = 5mA, R_g 1000≤, f = 400MHz	–	–	4.0	dB
Small−Signal Power Gain Common−Source	G_{ps}	V_{DS} = 15V, I_D = 5mA, f = 100MHz	18	–	–	dB
		V_{DS} = 15V, I_D = 5mA, f = 400MHz	10	–	–	dB
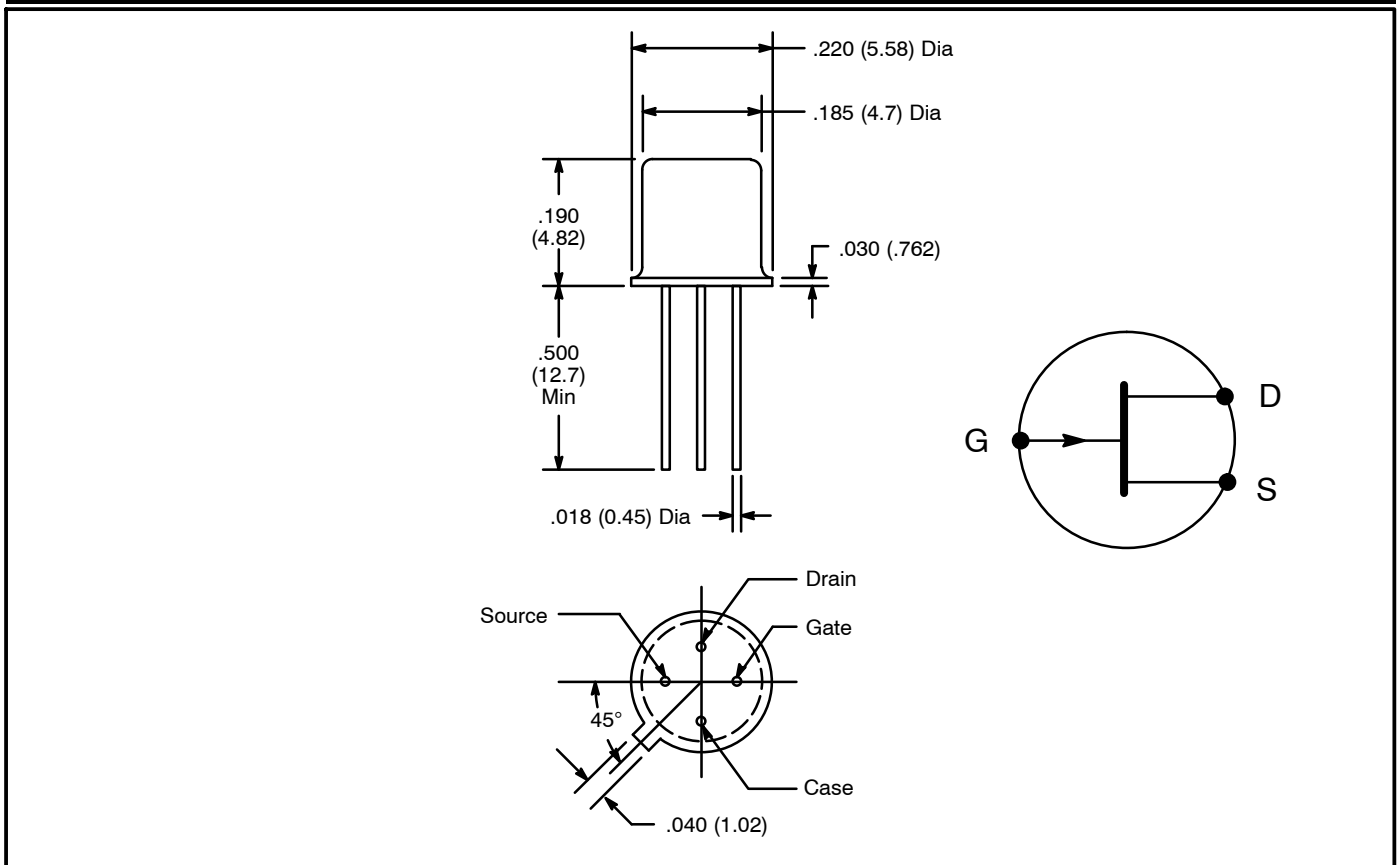
X-ON Electronics

Largest Supplier of Electrical and Electronic Components

Click to view similar products for MOSFET *category:*

Click to view products by NTE *manufacturer:*

Other Similar products are found below :

614233C 648584F MCH3443-TL-E MCH6422-TL-E FDPF9N50NZ FW216A-TL-2W FW231A-TL-E APT5010JVR NTNS3A92PZT5G IRF100S201 JANTX2N5237 2SK2464-TL-E 2SK3818-DL-E FCA20N60_F109 FDZ595PZ STD6600NT4G FSS804-TL-E 2SJ277-DL-E 2SK1691-DL-E 2SK2545(Q,T) 405094E 423220D MCH6646-TL-E TPCC8103,L1Q(CM 367-8430-0972-503 VN1206L 424134F 026935X 051075F SBVS138LT1G 614234A 715780A NTNS3166NZT5G 751625C 873612G IRF7380TRHR IPS70R2K0CEAKMA1 RJK60S3DPP-E0#T2 RJK60S5DPK-M0#T0 APT5010JVFR APT12031JFLL APT12040JVR DMN3404LQ-7 NTE6400 JANTX2N6796U JANTX2N6784U JANTXV2N5416U4 SQM110N05-06L-GE3 SIHF35N60E-GE3 2SK2614(TE16L1,Q)