

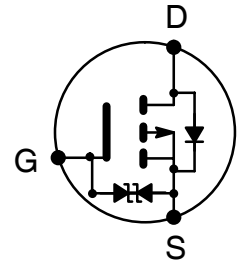


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NTE2997 MOSFET P-Channel, Enhancement Mode High Speed Switch

Features:

- Good Frequency Characteristics
- High Speed Switching
- Wide Area of Safe Operation
- Enhancement Mode
- Equipped with Gate Protection Diodes



Applications:

- Low Frequency Power Amplifier

Absolute Maximum Ratings: ($T_A = +25^\circ\text{C}$ unless otherwise specified)

Drain-Source Voltage, V_{DSX}	160V
Gate-Source Voltage, V_{GSS}	$\pm 15\text{V}$
Drain Current, I_D	7A
Body to Drain Diode Reverse Drain Current, I_{DR}	7A
Channel Dissipation ($T_C = +25^\circ\text{C}$), P_{CH}	100W
Channel Temperature T_{CH}	$+150^\circ\text{C}$
Storage Temperature Range, T_{stg}	-55° to $+150^\circ\text{C}$

Electrical Characteristics: ($T_C = +25^\circ\text{C}$ unless otherwise specified)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Drain-Source Breakdown Voltage	$V_{(BR)DSS}$	$I_D = 10\text{mA}$, $V_{GS} = 10\text{V}$	160	-	-	V
Gate-Source Breakdown Voltage	$V_{(BR)GSS}$	$I_G = \pm 100\mu\text{A}$, $V_{DS} = 0$	± 15	-	-	V
Gate-Source Cutoff Voltage	$V_{GS(off)}$	$I_D = 100\text{mA}$, $V_{DS} = 10\text{V}$	0.15	-	1.45	V
Drain-Source Saturation Voltage	$V_{DS(sat)}$	$I_D = 7\text{A}$, $V_{GS} = 0$, Note 1	-	-	12	V
Forward Transfer Admittance	$ y_{fs} $	$I_D = 3\text{A}$, $V_{DS} = 10\text{V}$, Note 1	0.7	1.0	1.4	S
Input Capacitance	C_{iss}	$V_{DS} = 10\text{V}$, $f = 1\text{MHz}$, $V_{GS} = 5\text{V}$	-	900	-	pF
Output Capacitance	C_{oss}		-	400	-	pF
Reverse Transfer Capacitance	C_{rss}		-	40	-	pF
Equivalent Output Capacitance	$C_{oss eq.}$	$V_{GS} = 0$, $V_{DS} = 0\text{V}$ to 480V , Note 5	-	90	-	pF
Turn-On Time	t_{on}	$V_{DD} = 20\text{V}$, $I_D = 4\text{A}$	-	230	-	ns
Turn-Off Time	t_{off}		-	110	-	ns

Note 1. Pulse test.

