

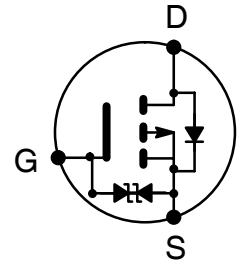


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## NTE2997 MOSFET P-Channel, Enhancement Mode High Speed Switch

**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, $V_{GSS}$ .....	$\pm 15V$
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, $T_{stg}$ .....	$-55^\circ$ 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	$V_{(BR)GSS}$	$I_G = \pm 100\mu\text{A}$ , $V_{DS} = 0$	$\pm 15$	-	-	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 $480\text{V}$ , 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.

