



ELECTRONICS, INC.
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NTE2955 MOSFET N-Channel, Enhancement Mode High Speed Switch

Application:

- C_S Switch for CRT Display Monitor

Absolute Maximum Ratings: (T_C = +25°C unless otherwise specified)

Drain-Source Voltage (V _{GS} = 0V), V _{DSS}	250V
Gate-Source Voltage (V _{DS} = 0V), V _{GS}	±20V
Drain Current, I _D	
Continuous	10A
Pulsed	30A
Avalanche Drain Current (Pulsed, L = 200µH), I _{DA}	10A
Maximum Power Dissipation, P _D	32W
Channel Temperature Range, T _{ch}	-55° to +150°C
Storage Temperature Range, T _{stg}	-55° to +150°C
Thermal Resistance, Channel-to-Case, R _{th(ch-c)}	3.91°C/W
Isolation Voltage (AC for 1 minute, Terminal-to-Case), V _{ISO}	2000V

Electrical Characteristics: (T_{ch} = +25°C unless otherwise specified)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Drain-Source Breakdown Voltage	V _{(BR)DSS}	V _{DS} = 0V, I _D = 1mA	250	-	-	V
Gate-Source Leakage	I _{GSS}	V _{GS} = ±20V, V _{DS} = 0V	-	-	±10	µA
Zero Gate Voltage Drain Current	I _{DSS}	V _{DS} = 250V, V _{GS} = 0	-	-	1.0	mA
Gate Threshold Voltage	V _{GS(th)}	V _{DS} = 10V, I _D = 1mA	2.0	3.0	4.0	V
Static Drain-Source ON Resistance	R _{DS(on)}	V _{GS} = 10V, I _D = 5A	-	0.40	0.52	Ω
Drain-Source On-State Voltage	V _{DS(on)}	V _{GS} = 10V, I _D = 5A	-	2.0	2.6	V
Forward Transfer Admittance	y _{fs}	V _{GS} = 10V, I _D = 5A	-	9.0	-	S

Electrical Characteristics (Cont'd): ($T_{ch} = +25^{\circ}\text{C}$ unless otherwise specified)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Input Capacitance	C_{iss}	$V_{GS} = 0\text{V}, V_{DS} = 25\text{V}, f = 1\text{MHz}$	-	950	-	pF
Output Capacitance	C_{oss}		-	90	-	pF
Reverse Transfer Capacitance	C_{rss}		-	25	-	pF
Turn-On Delay Time	$t_{d(on)}$	$V_{DD} = 150\text{V}, I_D = 5\text{A}, V_{GS} = 10\text{V}, R_{GEN} = R_{GS} = 50\Omega$	-	20	-	ns
Rise Time	t_r		-	25	-	ns
Turn-Off Delay Time	$t_{d(off)}$		-	150	-	ns
Fall Time	t_f		-	40	-	ns
Diode Forward Voltage	V_{SD}	$I_S = 5\text{A}, V_{GS} = 0\text{V}$	-	0.95	-	V

