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°C unless otherwise specified)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Input Capacitance	C_{iss}	V_{GS} = 0V, V_{DS} = 25V, f = 1MHz	–	950	–	pF
Output Capacitance	C_{oss}		–	90	–	pF
Reverse Transfer Capacitance	C_{rss}		–	25	–	pF
Turn–On Delay Time	$t_{d(on)}$	V_{DD} = 150V, I_D = 5A, V_{GS} = 10V, R_{GEN} = R_{GS} = 50Ω	–	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 = 5A, V_{GS} = 0V	–	0.95	–	V