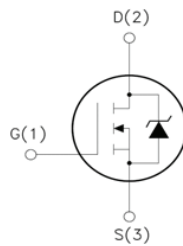


N-Channel MOSFET

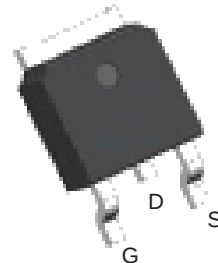
NDT15N10

■ Features

- $R_{DS(ON)} = 80m\Omega$ @ $V_{GS} = 10V, I_D = 8A$
- Low gate charge (Typ=24nC)
- Low C_{RSS} (Typ=23pF)
- High switching speed



TO-252



1. Gate (G)
2. Drain (D)
3. Source (S)

■ Absolute Maximum Ratings $T_a = 25^\circ\text{C}$

Parameter		Symbol	Rating	Unit
Drain-Source Voltage		V_{DS}	100	V
Gate-Source Voltage		V_{GS}	± 20	
Continuous Drain Current	$T_C = 25^\circ\text{C}, T_J = 150^\circ\text{C}$	I_D	14.7	A
	$T_C = 70^\circ\text{C}, T_J = 150^\circ\text{C}$		13.6	
Pulsed Drain Current		I_{DM}	59	
Power Dissipation	$T_C = 25^\circ\text{C}$	P_D	34.7	W
	$T_C = 70^\circ\text{C}$		22.2	
Thermal Resistance. Junction- to-Case (Note.1)		R_{thJC}	3.6	$^\circ\text{C/W}$
Junction Temperature		T_J	150	$^\circ\text{C}$
Storage Temperature Range		T_{stg}	-55 to 150	

Note.1: The device mounted on 1in^2 FR4 board with 2 oz copper.

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■ Electrical Characteristics Ta = 25°C

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Drain-Source Breakdown Voltage	V _{DSS}	I _D =250 μA, V _{GS} =0V	100			V
Zero Gate Voltage Drain Current	I _{DSS}	V _{DS} =80V, V _{GS} =0V			1	μA
Gate-Body Leakage Current	I _{GSS}	V _{DS} =0V, V _{GS} =±20V			±100	nA
Gate Threshold Voltage	V _{GS(th)}	V _{DS} =V _{GS} , I _D =250 μA	1		3	V
Static Drain-Source On-Resistance (Note.1)	R _{DS(on)}	V _{GS} =10V, I _D =8A		80	100	mΩ
Input Capacitance	C _{iss}	V _{GS} =0V, V _{DS} =15V, f=1MHz		890		pF
Output Capacitance	C _{oss}			58		
Reverse Transfer Capacitance	C _{rss}			23		
Gate-Resistance	R _g	V _{GS} =0, V _{DS} =0, f=1MHz		0.9		Ω
Total Gate Charge	Q _g	V _{GS} =10V, V _{DS} =80V, I _D =10A		24		nC
Gate Source Charge	Q _{gs}	V _{GS} =4.5V, V _{DS} =80V, I _D =10A		13		
Gate Drain Charge	Q _{gd}			4.6		
				7.6		
Turn-On DelayTime	t _{d(on)}	V _{GS} =10V, V _{DS} =50V, R _L =5 Ω, R _{GEN} =1 Ω		14		ns
Turn-On Rise Time	t _r			33		
Turn-Off DelayTime	t _{d(off)}			39		
Turn-Off Fall Time	t _f			5		
Diode Forward Voltage	V _{SD}	I _S =8A, V _{GS} =0V		0.9	1.2	V

Note.1:Pulse test: pulse width≤300us, duty cycle≤2%, Guaranteed by design, not subject to production testing.

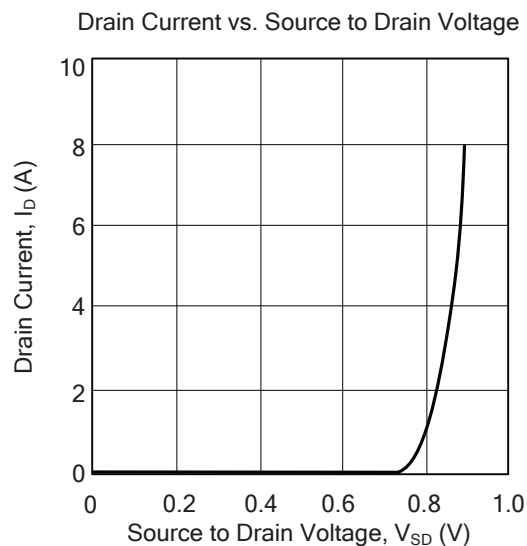
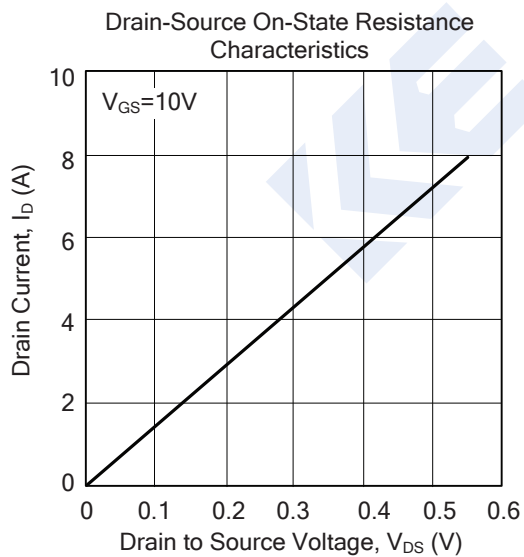
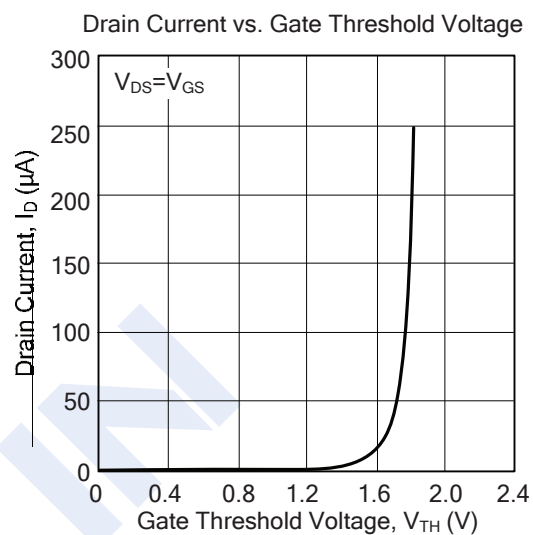
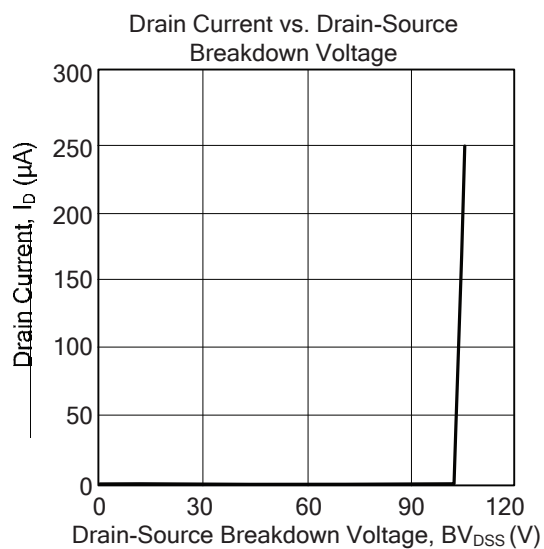
■ Marking

Marking	15N10 K****
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N-Channel MOSFET

NDT15N10

■ Typical Characteristics



N-Channel MOSFET

NDT15N10

■ Package Dimension

Units: mm

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