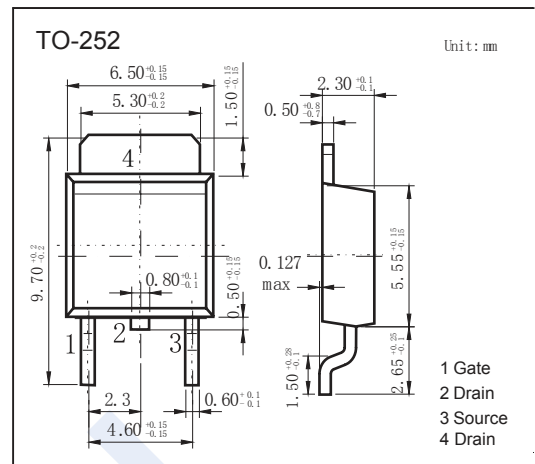
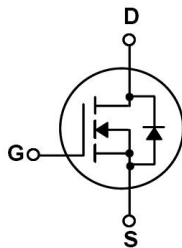


N-Channel MOSFET

NDT18N06

■ Features

- $V_{DS}(V) = 60V$
- $I_D = 18\text{ A}$ ($V_{GS} = 10V$)
- $R_{DS(ON)} < 55\text{ m}\Omega$ ($V_{GS} = 10V$)
- $R_{DS(ON)} < 68\text{ m}\Omega$ ($V_{GS} = 4.5V$)



■ Absolute Maximum Ratings Ta = 25°C

Parameter		Symbol	Rating	Unit
Drain-Source Voltage		V _{DS}	60	V
Gate-Source Voltage		V _{GS}	±20	
Continuous Drain Current	T _C =25°C	I _D	18	A
	T _C =70°C		14.5	
Pulsed Drain Current		I _{DM}	72	
Power Dissipation	T _C =25°C	P _D	36	W
	T _C =70°C		23	
Single Pulsed Avalanche Energy		E _{AS}	25	mJ
Junction Temperature		T _J	150	°C
Storage Temperature Range		T _{stg}	-55 to 150	

N-Channel MOSFET

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■ Electrical Characteristics Ta = 25°C

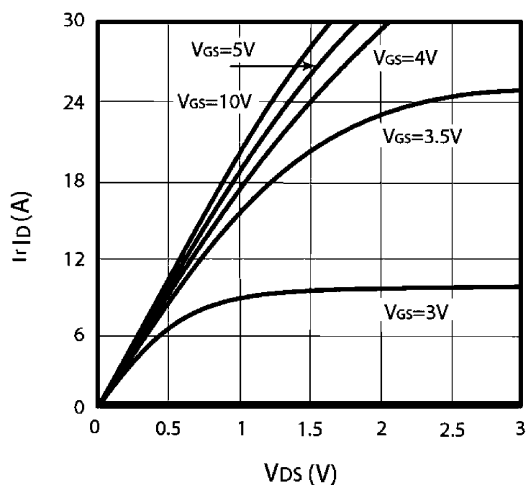
Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Drain-Source Breakdown Voltage	V _{DSS}	I _D =250 μA, V _{GS} =0V	60			V
Zero Gate Voltage Drain Current	I _{DSS}	V _{DS} =48V, V _{GS} =0V			1	μA
Gate-Body Leakage Current	I _{GSS}	V _{DS} =0V, V _{GS} =±20V			±100	nA
Gate Threshold Voltage	V _{GS(th)}	V _{DS} =V _{GS} , I _D =250 μA	1		3	V
Static Drain-Source On-Resistance	R _{DS(on)}	V _{GS} =10V, I _D =18A			55	mΩ
		V _{GS} =4.5V, I _D =16.2A			68	
Forward Transconductance	g _{FS}	V _{DS} =30V, I _D =18A		16		S
Input Capacitance	C _{iss}	V _{GS} =0V, V _{DS} =30V, f=1MHz		825		pF
Output Capacitance	C _{oss}			72		
Reverse Transfer Capacitance	C _{rss}			48		
Turn-On DelayTime	t _{d(on)}	V _{DD} =30V I _D =1A V _{GS} =10V R _{GEN} =3.3Ω		13		ns
Turn-On Rise Time	t _r			12.5		
Turn-Off DelayTime	t _{d(off)}			38		
Turn-Off Fall Time	t _f			6		
Diode Forward Voltage	V _{SD}	I _S =1.7A, V _{GS} =0V			1.3	V

N-Channel MOSFET

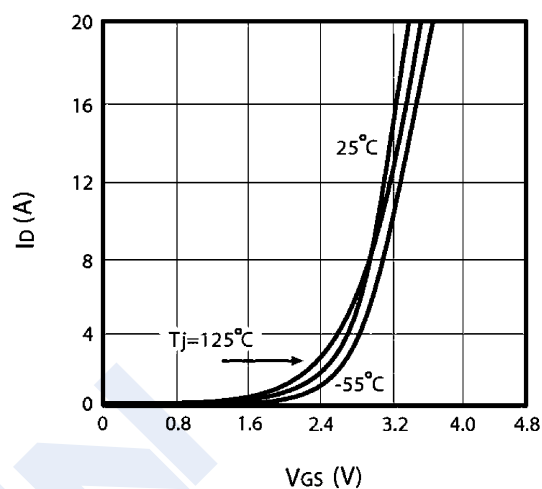
NDT18N06

■ Typical Characteristics

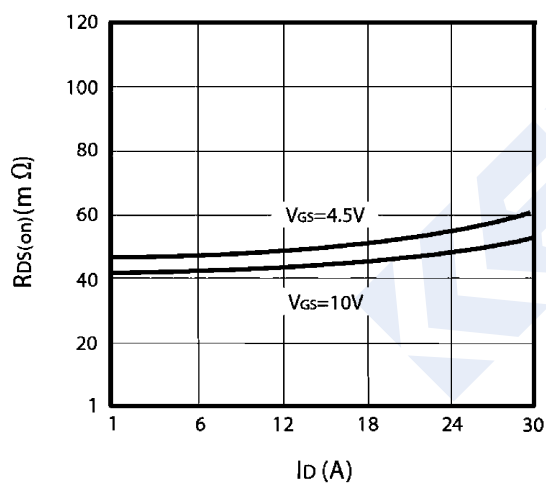
$I_D - V_{DS}$



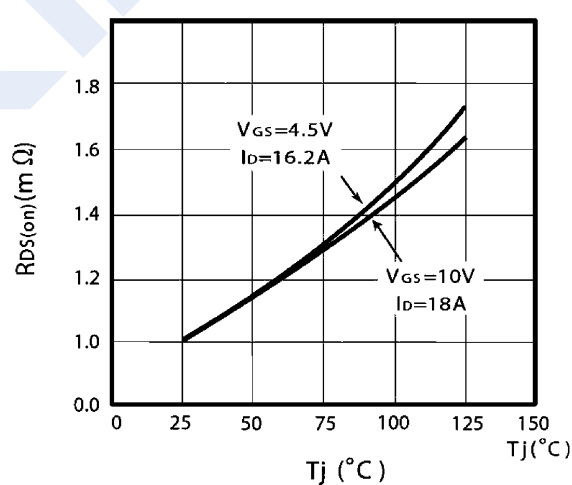
$I_D - V_{GS}$



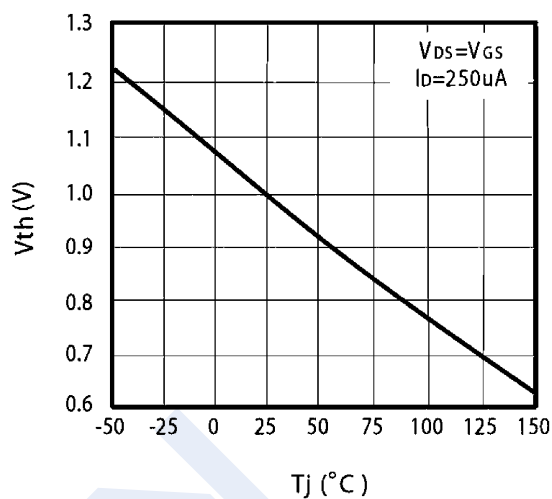
$R_{DS(on)} - I_D$



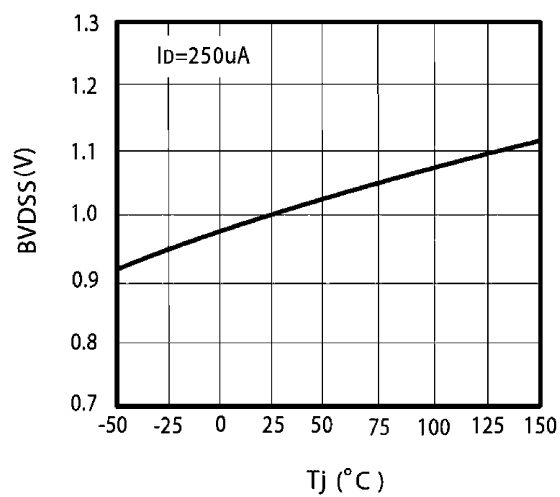
$R_{DS(on)} - T_J$



$V_{th} - T_J$



$B_{VDS} - T_J$



N-Channel MOSFET

NDT18N06

Typical Characteristics

