

Product Summary

V _{(BR)DSS}	R _{DS(on)TYP}	I _D
100V	6.5mΩ@10V	75A
	7.5mΩ@4.5V	

Feature

- Split Gate Trench Technology
- Low R_{DS(ON)}
- Low Gate Charge
- Low Gate Resistance
- 100% UIS Tested

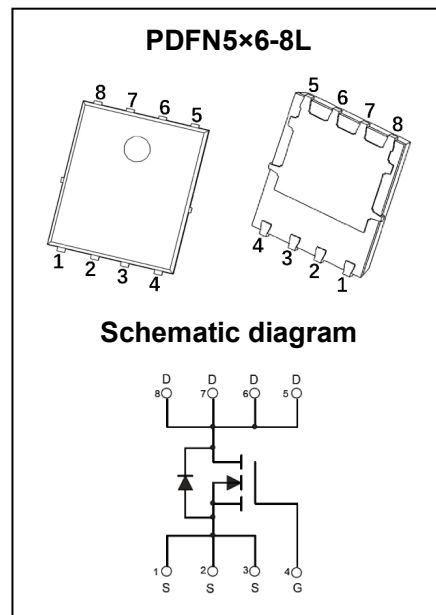
Application

- Power Switching Application

MARKING:



T076N10L = Device Code
 XX = Date Code
 Solid Dot = Green Indicator



ABSOLUTE MAXIMUM RATINGS (T_A = 25°C unless otherwise noted)

Parameter	Symbol	Value	Unit
Drain - Source Voltage	V _{DS}	100	V
Gate - Source Voltage	V _{GS}	±20	V
Continuous Drain Current ¹	T _C = 25°C	I _D	75
	T _C = 100°C	I _D	53
Pulsed Drain Current ²	I _{DM}	300	A
Single Pulsed Avalanche Current ³	I _{AS}	37.9	A
Single Pulsed Avalanche Energy ³	E _{AS}	359	mJ
Power Dissipation ⁵	T _C = 25°C	P _D	96
Thermal Resistance from Junction to Ambient ⁶	R _{θJA}	55	°C/W
Thermal Resistance from Junction to Case	R _{θJC}	1.3	°C/W
Junction Temperature	T _J	150	°C
Storage Temperature	T _{STG}	-55~ +150	°C

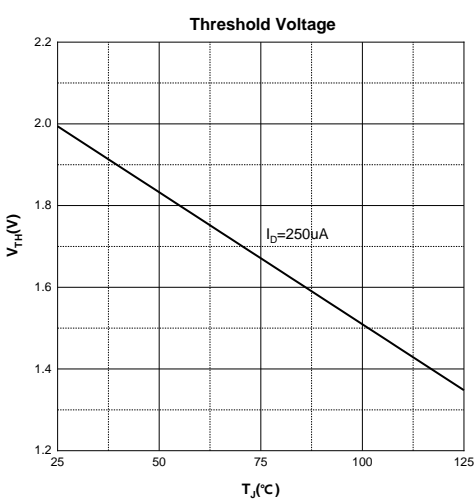
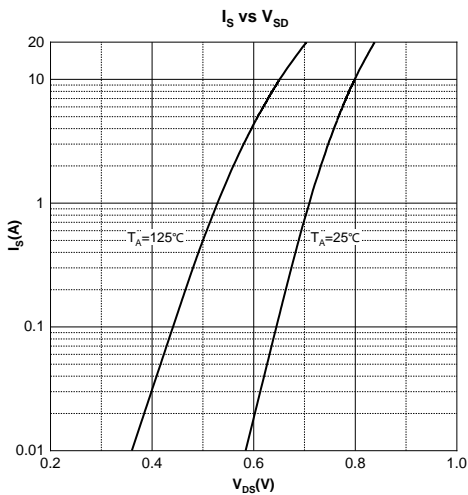
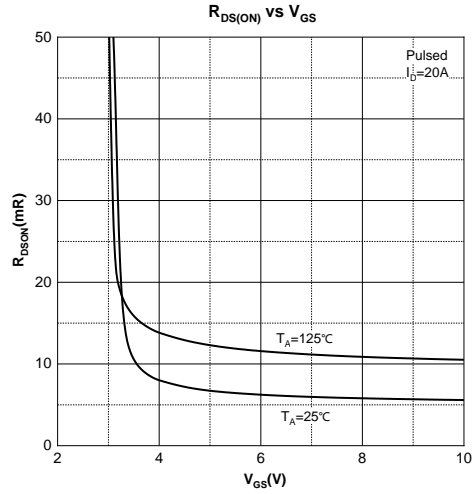
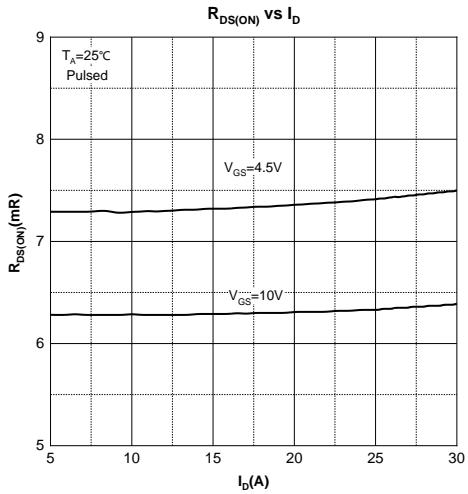
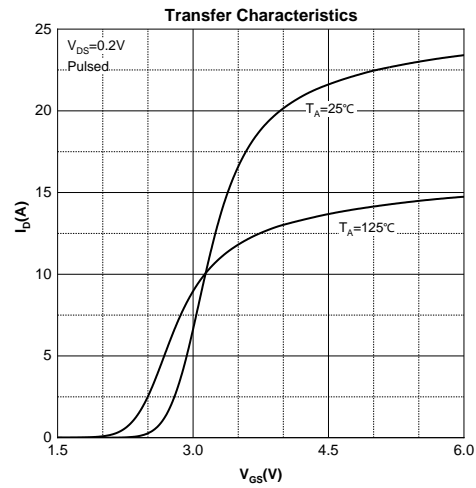
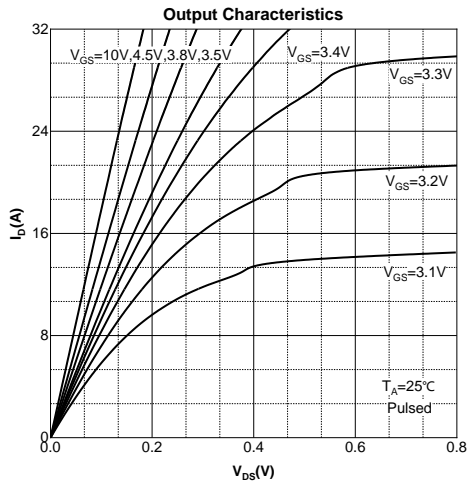
MOSFET ELECTRICAL CHARACTERISTICS ($T_J = 25^\circ\text{C}$ unless otherwise noted)

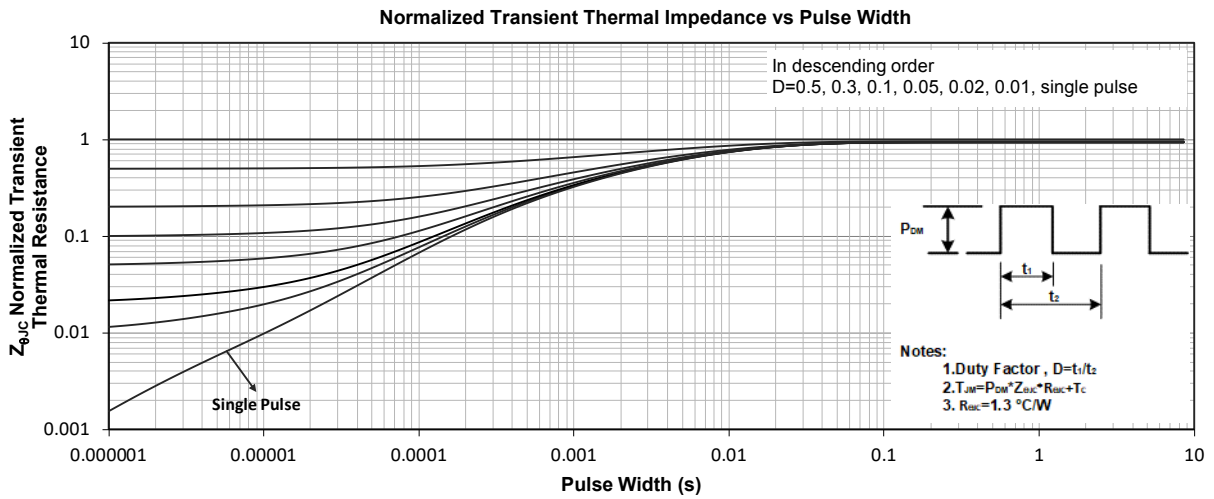
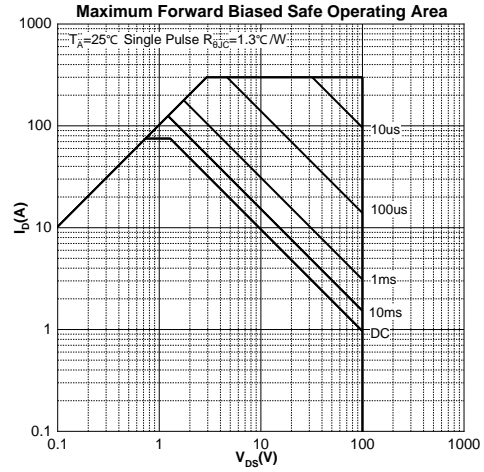
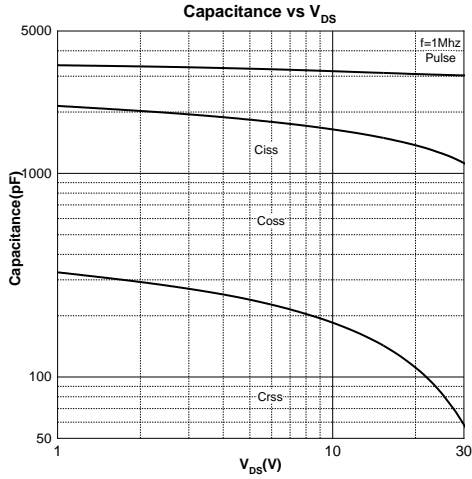
Parameter	Symbol	Test Condition	Min	Type	Max	Unit
Off Characteristics						
Drain - Source Breakdown Voltage	$V_{(BR)DSS}$	$V_{GS} = 0V, I_D = 250\mu A$	100			V
Zero Gate Voltage Drain Current	I_{DSS}	$V_{DS} = 100V, V_{GS} = 0V$			1	μA
Gate - Body Leakage Current	I_{GSS}	$V_{GS} = \pm 20V, V_{DS} = 0V$			± 100	nA
On Characteristics⁴						
Gate Threshold Voltage	$V_{GS(th)}$	$V_{DS} = V_{GS}, I_D = 250\mu A$	1.0	2.0	3.0	V
Drain-source On-resistance	$R_{DS(on)}$	$V_{GS} = 10V, I_D = 20A$		6.5	8.5	m Ω
		$V_{GS} = 4.5V, I_D = 15A$		7.5	12.5	
Forward Transconductance	g_{FS}	$V_{DS} = 10V, I_D = 20A$		55		S
Dynamic Characteristics						
Input Capacitance	C_{iss}	$V_{DS} = 50V, V_{GS} = 0V, f = 1MHz$		3047		pF
Output Capacitance	C_{oss}			412		
Reverse Transfer Capacitance	C_{rss}			16		
Gate Resistance	R_g	$V_{DS} = 0V, V_{GS} = 0V, f = 1MHz$		1.4		Ω
Switching Characteristics						
Total Gate Charge	Q_g	$V_{DS} = 50V, V_{GS} = 10V, I_D = 20A$		50.1		nC
Gate-source Charge	Q_{gs}			9.9		
Gate-drain Charge	Q_{gd}			9.9		
Turn-on Delay Time	$t_{d(on)}$	$V_{DD} = 50V, V_{GS} = 10V, I_D = 20A$ $R_G = 3\Omega$		15		ns
Turn-on Rise Time	t_r			31		
Turn-off Delay Time	$t_{d(off)}$			58		
Turn-off Fall Time	t_f			15		
Source - Drain Diode Characteristics						
Diode Forward Voltage ⁴	V_{SD}	$V_{GS} = 0V, I_S = 10A$			1.2	V

Notes :

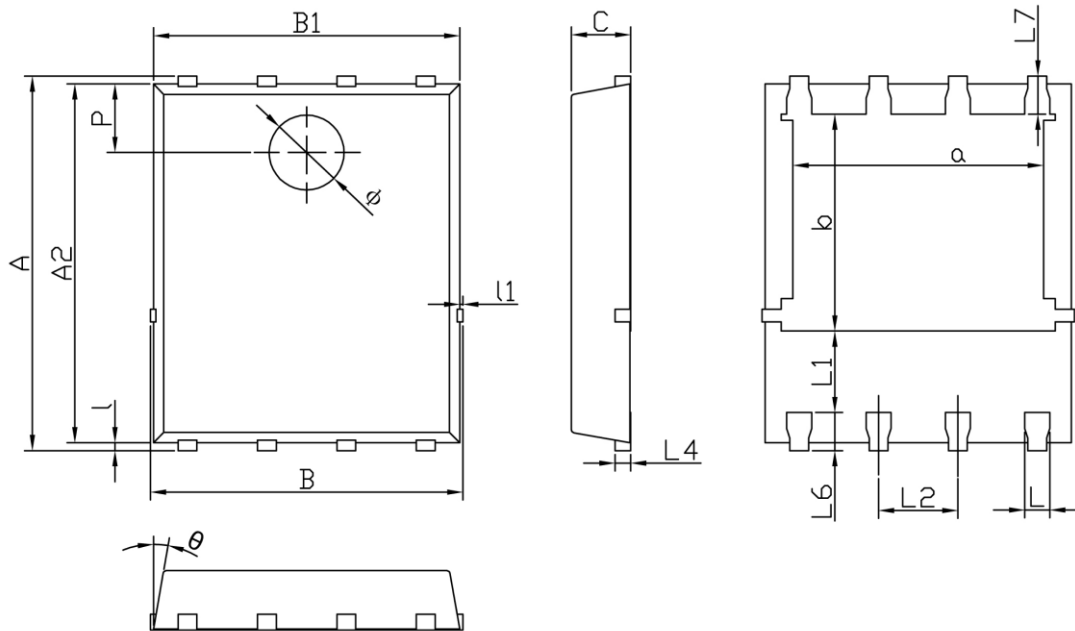
- 1.The maximum current rating is limited by package.And device mounted on a large heatsink
- 2.Pulse Test : Pulse Width $\leq 10\mu s$, duty cycle $\leq 1\%$.
- 3.EAS condition: $V_{DD} = 50V, V_{GS} = 10V, L = 0.5mH, R_G = 25\Omega$ Starting $T_J = 25^\circ\text{C}$.
- 4.Pulse Test : Pulse Width $\leq 300\mu s$, duty cycle $\leq 2\%$.
- 5.The power dissipation P_D is limited by $T_{J(MAX)} = 150^\circ\text{C}$.And device mounted on a large heatsink
- 6.Device mounted on $1in^2$ FR-4 board with 2oz. Copper, in a still air environment with $T_A = 25^\circ\text{C}$.

Typical Characteristics





PDFN5×6-8L Package Information



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min.	Max.	Min.	Max.
A	5.900	6.100	0.232	0.240
a	3.910	4.110	0.154	0.162
A2	5.700	5.800	0.224	0.228
B	4.900	5.100	0.193	0.201
b	3.370	3.570	0.133	0.141
B1	4.800	5.000	0.189	0.197
C	0.900	1.000	0.035	0.039
L	0.350	0.450	0.014	0.018
l	0.060	0.200	0.002	0.008
L1	1.100	-	0.043	-
l1	-	0.100	-	0.004
L2	1.170	1.370	0.046	0.054
L4	0.210	0.340	0.008	0.013
L6	0.510	0.710	0.020	0.028
L7	0.510	0.710	0.020	0.028
P	1.000	1.200	0.039	0.047
Φ	1.100	1.300	0.043	0.051
θ	8°	12°	8°	12°

单击下面可查看定价，库存，交付和生命周期等信息

[>>GP\(格瑞宝\)](#)