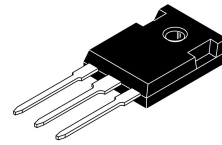


Features

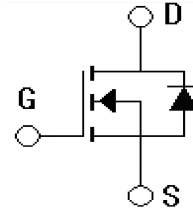
- $V_{DS}=150V, I_D=170A$
 $R_{DS(on)}=6m\Omega$
- Low gate charge
- Improved dv/dt capability



TO-247

Applications

- Quick Charger
- Load Switch
- industrial power supplies
- Telecom
- Optimized for Power Management Applications



Absolute Ratings (Tc=25°C)

Parameter	Symbol	Limit	Unit
Drain-Source Voltage	V_{DSS}	150	V
Gate-Source Voltage	V_{GSS}	± 30	V
Drain Current-continuous	I_D	170	A
Drain Current-pulse	I_{DM}	680	A
Single Pulsed Avalanche Energy	E_{AS}	400	mJ
Maximum Power Dissipation	PD TC=25°C TC=100°C	375	W
		187.5	
Operating and Storage Temperature Range	T_J, T_{STG}	-55~+175	°C

Electrical Characteristics(T_{CASE}=25°C unless otherwise specified)

Parameter	Symbol	Tests conditions	Min	Typ	Max	Units
Drain-Source Voltage	BV_{DSS}	$I_D=250\mu A, V_{GS}=0V$	150	-	-	V
Zero Gate Voltage Drain Current	I_{DSS}	$V_{DS}=V_{DSS}, V_{GS}=0V$	-	-	1	μA
Gate-Body Leakage Current	I_{GSS}	$V_{GS}=\pm 30V, V_{DS}=0V$	-	-	± 100	nA
On-Characteristics						
Gate Threshold Voltage	$V_{GS(th)}$	$V_{DS}=V_{GS}, I_D=250\mu A$	2.0	3.0	4.5	V
Static Drain-Source On-Resistance	$R_{DS(ON)}$	$V_{GS}=10V, I_D=50A$	-	6.0	7.5	m Ω

Dynamic Characteristics						
Input capacitance	C_{iss}	$V_{DS}=75V,$ $V_{GS}=0V,$ $f=1.0MHz$	-	8590	-	pF
Output capacitance	C_{oss}		-	580	-	pF
Reverse transfer capacitance	C_{rss}		-	13.4	-	pF

Electrical Characteristics($T_{CASE}=25^{\circ}C$ unless otherwise specified)

Parameter	Symbol	Tests conditions	Min	Typ	Max	Units
Switching-Characteristics						
Turn-On delay time	$t_{d(on)}$	$V_{DS}=75V, I_D=10A,$ $V_{GS}=10V$ $R_G=2\Omega$	-	19	-	ns
Turn-On rise time	t_r		-	22	-	ns
Turn-Off delay time	$t_{d(off)}$		-	78	-	ns
Turn-Off rise time	t_f		-	18	-	ns
Total Gate Charge	Q_g	$V_{DS}=75V,$ $I_D=50A,$ $V_{GS}=10V$	-	139	-	nC
Gate-Source charge	Q_{gs}		-	35	-	nC
Gate-Drain charge	Q_{gd}		-	54	-	nC
Drain-Source Diode Characteristics and Maximum Ratings						
Maximum Continuous Drain-Source Diode Forward Current	V_{SD}	$V_{GS}=0V, I_S=50A$		0.85	1.2	V
Diode Forward Current	I_S	$TC=25^{\circ}C$	-	-	170	A
Reverse recovery time	T_{rr}	$I_S=50A,$ $di/dT=100A/\mu S$	-	89		nS
Reverse recovery charge	Q_{rr}		-	1120		nC

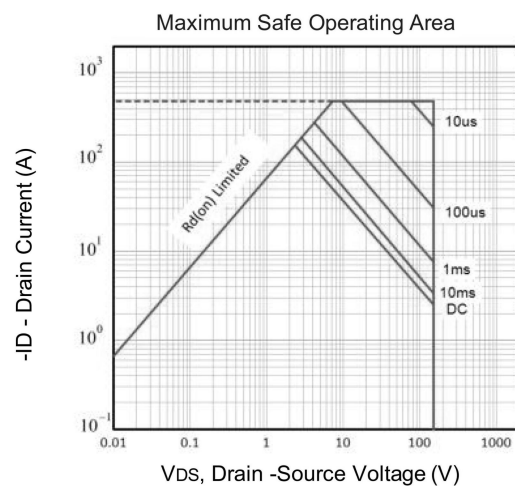
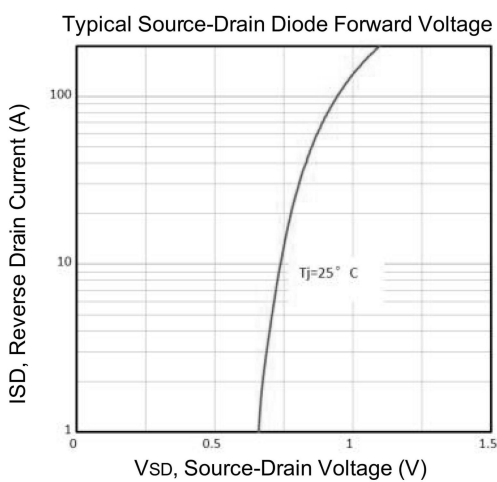
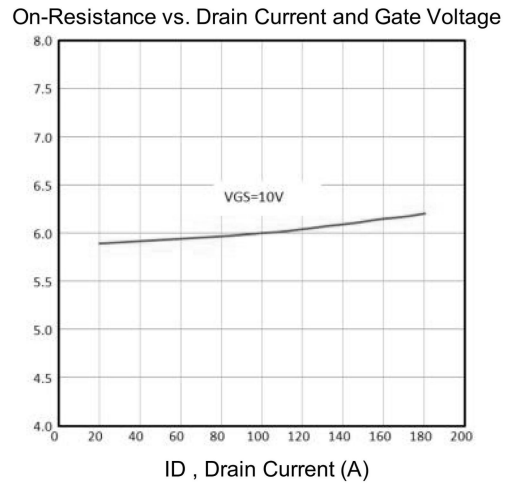
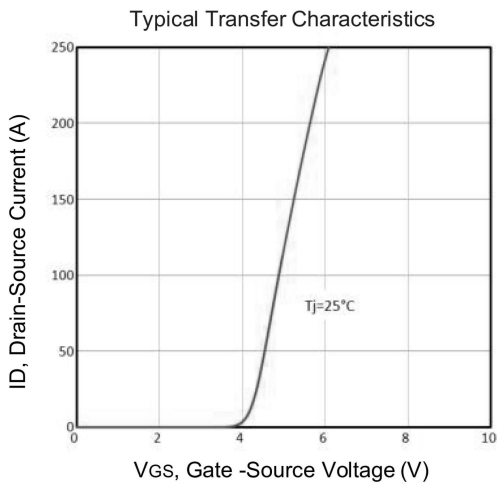
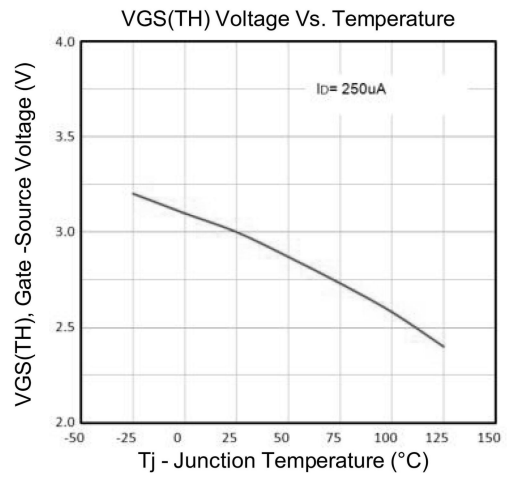
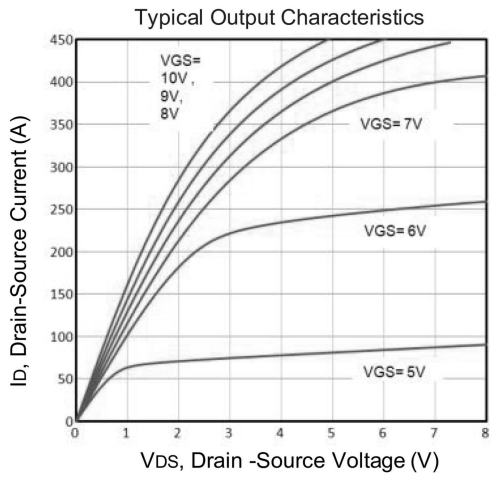
Thermal Characteristic

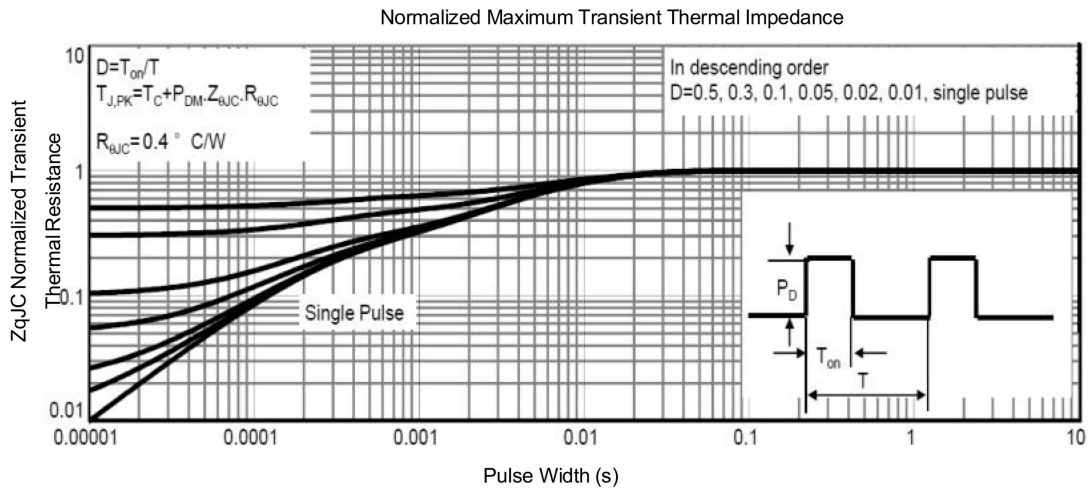
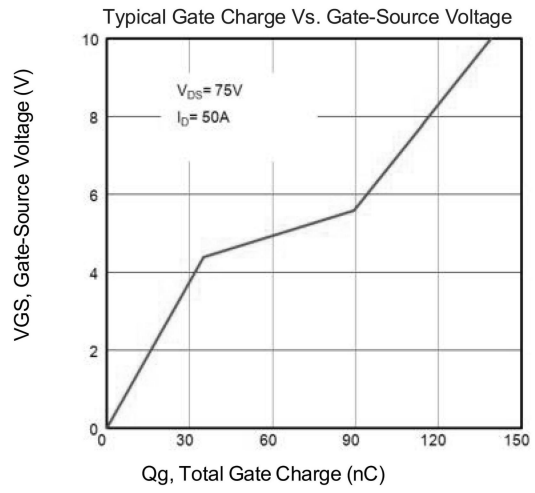
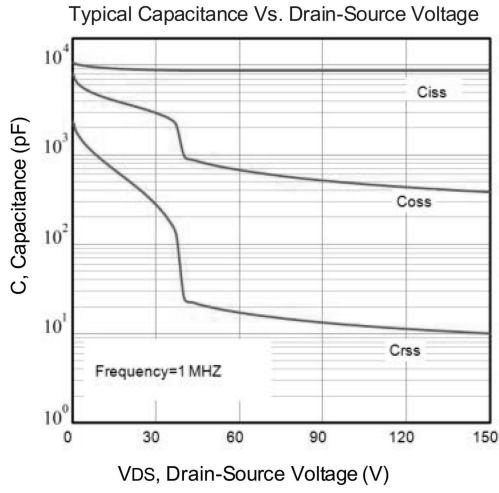
Parameter	Symbol	Value	Unit
Thermal Resistance, junction to Case	$R_{th(j-C)}$	0.4	$^{\circ}C/W$
Thermal Resistance, junction to Ambient	$R_{th(j-A)}$	40	$^{\circ}C/W$

Notes:

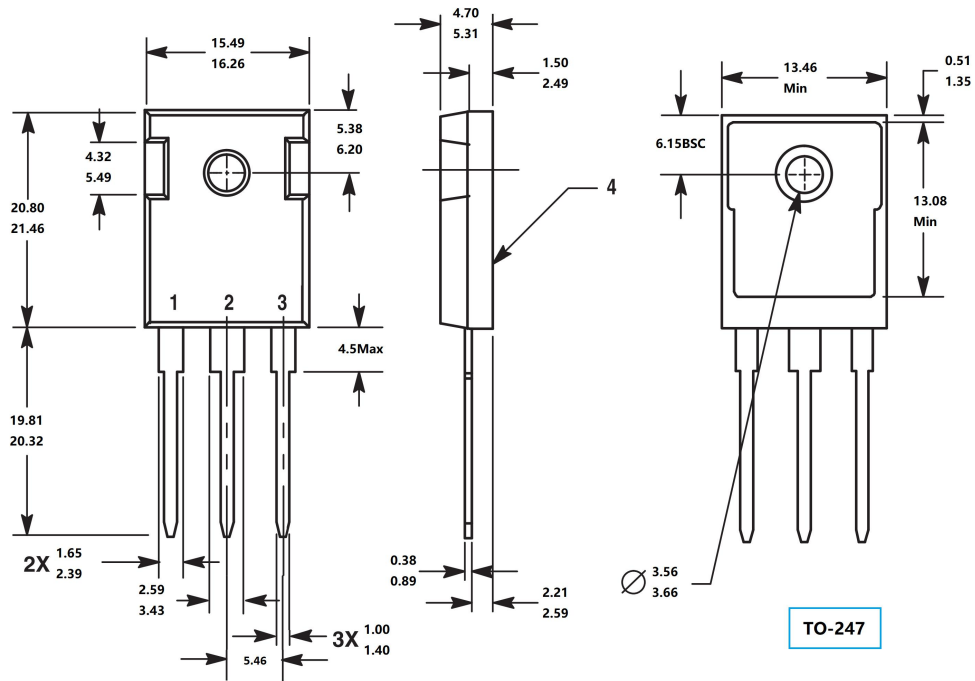
1. Pulse Test: Pulse Width $\leq 300\mu s$, Duty Cycle $\leq 2\%$
2. Limited by T_{jmax} , starting $T_j=25^{\circ}C, L=0.5mH, V_{GS}=10V$

Electrical Characteristics





Package Mechanical DATA



X-ON Electronics

Largest Supplier of Electrical and Electronic Components

Click to view similar products for [MOSFET](#) category:

Click to view products by [MASPOWER](#) manufacturer:

Other Similar products are found below :

[IRFD120](#) [IRFY240C](#) [JANTX2N5237](#) [2SK2267\(Q\)](#) [BUK455-60A/B](#) [MIC4420CM-TR](#) [VN1206L](#) [NDP4060](#) [SI4482DY](#)
[IPS70R2K0CEAKMA1](#) [SQD23N06-31L-GE3](#) [TK16J60W,S1VQ\(O](#) [2SK2614\(TE16L1,Q\)](#) [DMN1017UCP3-7](#) [EFC2J004NUZTDG](#)
[DMN1053UCP4-7](#) [SQJ469EP-T1-GE3](#) [NTE2384](#) [DMC2700UDMQ-7](#) [DMN2080UCB4-7](#) [DMN61D9UWQ-13](#) [US6M2GTR](#)
[DMN31D5UDJ-7](#) [DMP22D4UFO-7B](#) [DMN1006UCA6-7](#) [DMN16M9UCA6-7](#) [STF5N65M6](#) [IRF40H233XTMA1](#) [STU5N65M6](#)
[DMN6022SSD-13](#) [DMN13M9UCA6-7](#) [DMTH10H4M6SPS-13](#) [DMN2990UFB-7B](#) [IPB80P04P405ATMA2](#) [2N7002W-G](#) [MCAC30N06Y-](#)
[TP](#) [MCQ7328-TP](#) [NTMC083NP10M5L](#) [NVMFS2D3P04M8LT1G](#) [BXP7N65D](#) [BXP4N65F](#) [AOL1454G](#) [WMJ80N60C4](#) [BXP2N20L](#)
[BXP2N65D](#) [BXT1150N10J](#) [BXT1700P06M](#) [TSM60NB380CP](#) [ROG](#) [RQ7L055BGTCR](#) [DMNH15H110SK3-13](#)