120V N-CHANNEL ENHANCEMENT MODE POWER MOSFET

MAIN CHARACTERISTICS

I_D	40A
V_{DS}	120V
R_{DSON}-typ(@V_{GS}=10V)	13mΩ**(Typ:10mΩ)**

FEATURES

- Proprietary New Trench Technology
- Low Gate Charge Mi i=s 4 ๅ ๖ ๕ ๖

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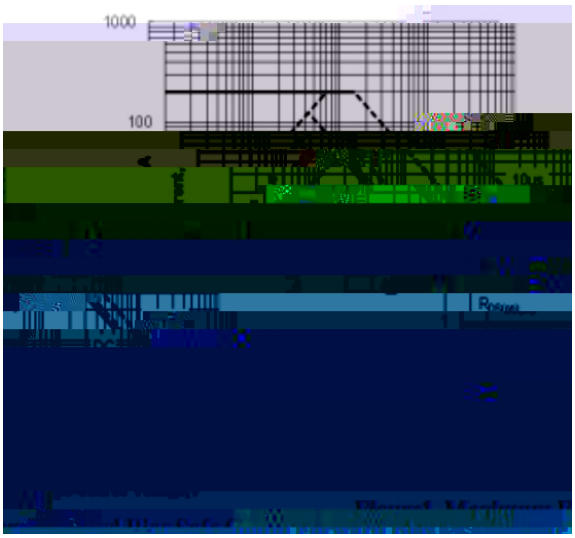
Maximum Ratings at Tc=25°C unless otherwise specified

Characteristics	Test Condition	Symbols	Min	Typ	Max	Units
Drain-Source Breakdown Voltage	V_{GS}=0V, I_D=250uA	BV_{DSS}	120	-	-	V
Drain-Source Leakage Current	V_{DS}=120V , V_{GS}=0V	I_{DSS}	-	-	1	μA
Gate-Source Leakage Current	V_{GS} = ± 20 V, V_{DS} = 0 V	I_{GSS}	-	-	±100	nA
Gate-Source Threshold Voltage	V_{DS}=V_{GS}, I_D=250uA	$V_{GS(th)}$	1.1	-	2.5	V
Drain-source on-state resistance	V_{GS}=10V, I_D=20A	$R_{DS(ON)}$	-	10	13	mΩ
	V_{GS}=4.5V, I_D=20A		-	14	16.5	
Input Capacitance	V_{GS}=0V V_{DS}=60V f=1MHz	C_{iss}	-	1431	-	pF
Output Capacitance		C_{oss}	-	313	-	
Reverse Transfer Capacitance		C_{rss}	-	31	-	
Turn-on delay time(Note2)	V_{DD}=60V V_{GS}=10V R_G=2.2Ω I_D=20 A	$t_{d(on)}$	-	14	-	ns
Rise Time(Note2)		T_r	-	5	-	
Turn-Off Delay Time(Note2)		$t_{d(OFF)}$	-	30	-	
Fall Time(Note2)		t_f	-	6	-	
Total Gate Charge(Note2)	I_D=20A V_{DS}=60V V_{GS}=10V	Q_g	-	21	-	nC
Gate-Source Charge(Note2)		Q_{gs}	-	5	-	
Gate-Drain Charge(Note2)		Q_{gd}	-	3	-	
Maximun Body-Diode Continuous Current		I_S	-	-	40	

Ratings and Characteristic Curves



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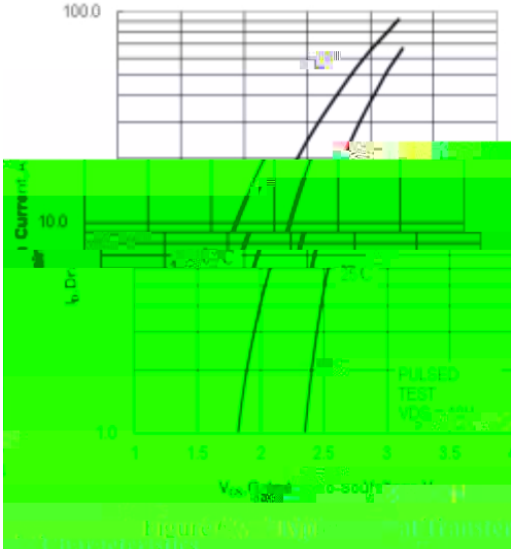

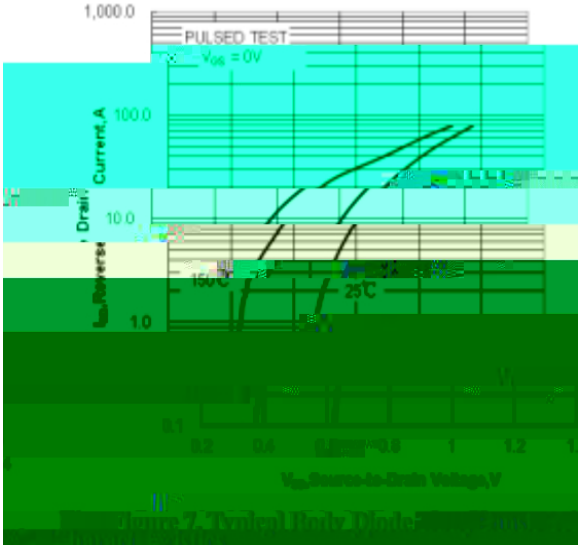

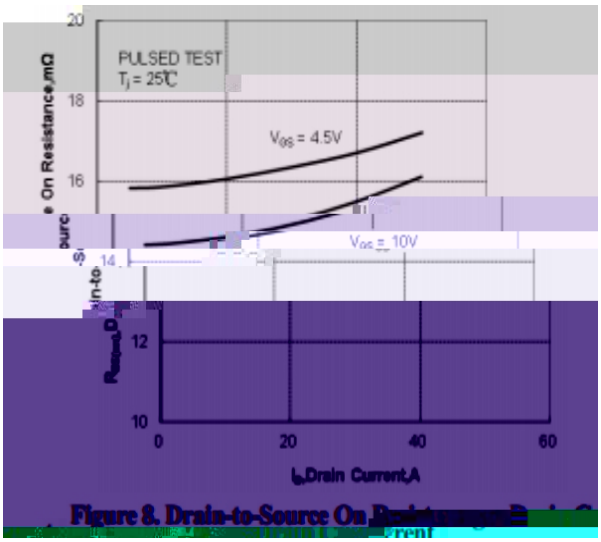

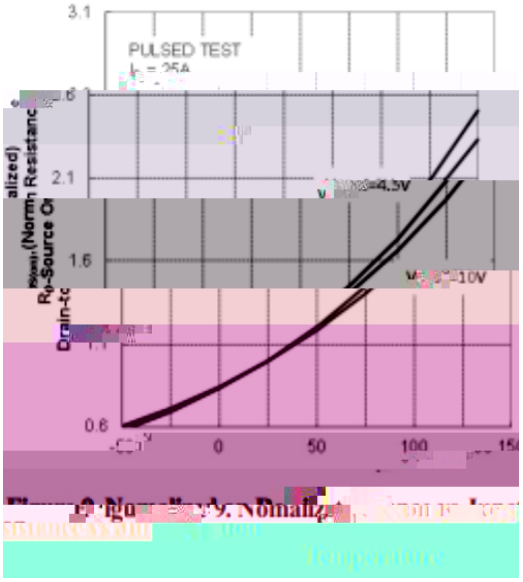

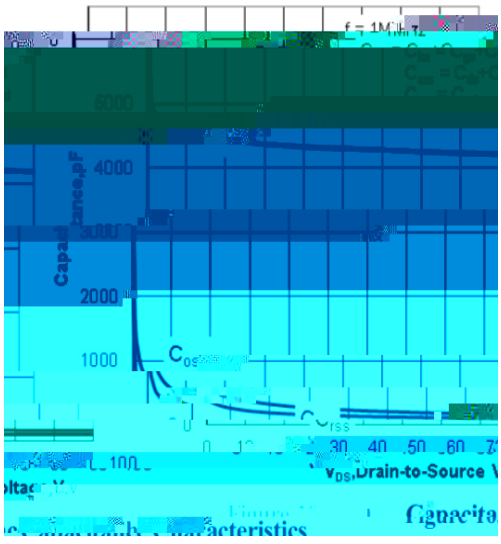

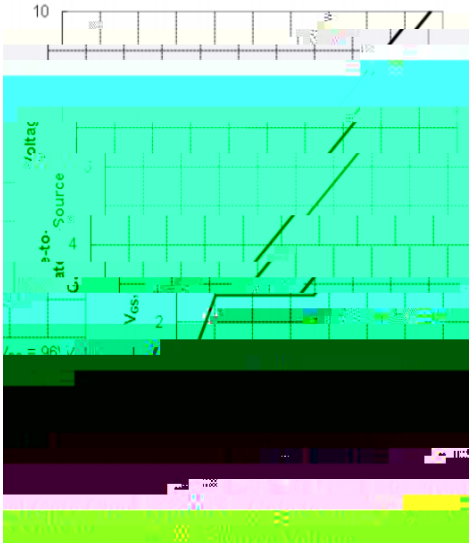

Marking Diagram

Ordering information

Model name	Package	Unit Weight	Base Quantity	Packing Quantity
YFWG40N12AF	TO-220F	0.06oz(1.74g)	50pcs/tube	1000PCS/Box 5000PCS/Carton

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