



60V TrenchT3™ HiPerFET™ Power MOSFETs

IXYS Corporation

Product Line Introduction (60V TrenchT3™ HiPerFET™ MOSFETs)

Ultra low on-resistance, rugged devices for industrial power conversion applications



- Ultra low on-state resistance $R_{DS(on)}$
- High current handling capability
- Avalanche rated
- Fast body diode
- 175°C operating temperature
- High power density
- Available in international standard packages: TO-220, TO-263, TO-247

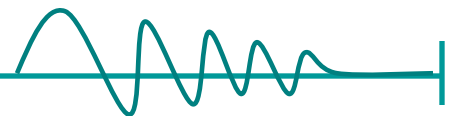
Key Technology Advantages

TrenchT3™ Technology

- $R_{DS(on)}$ as low as 3.1mΩ
- High-current handling capability
- Reduction in the number of MOSFETs needed
- Paralleling multiple devices avoided

Avalanche Ruggedness & Fast Body Diode

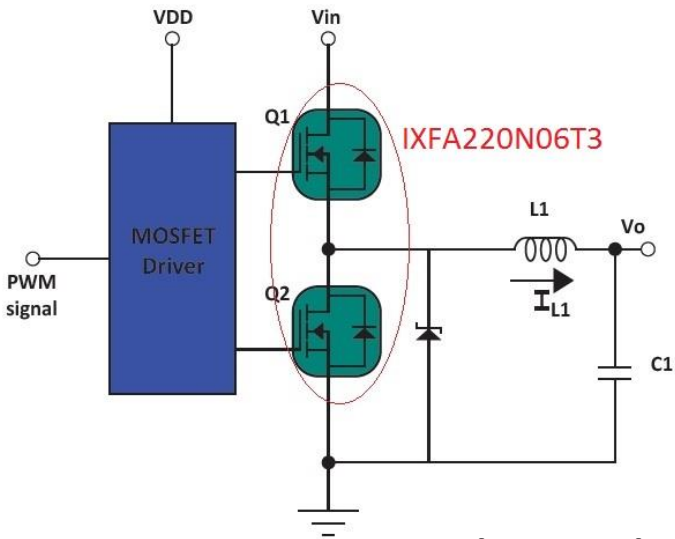
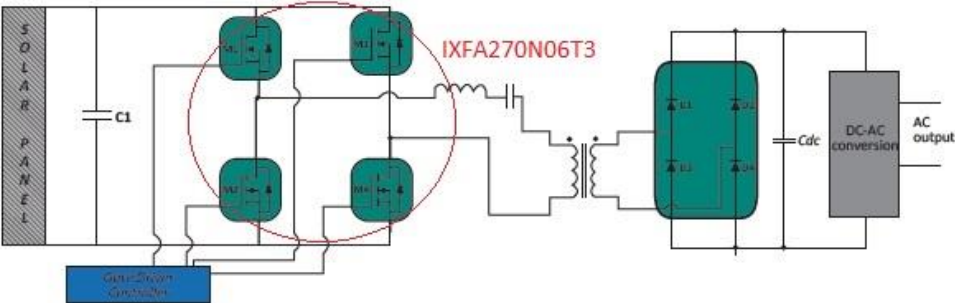
- Avalanche rated at high avalanche current levels
- Junction temperature up to 175°C
- High efficiency during high-speed switching



Applications

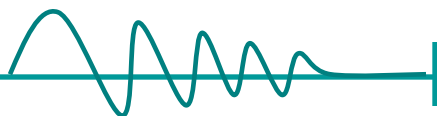
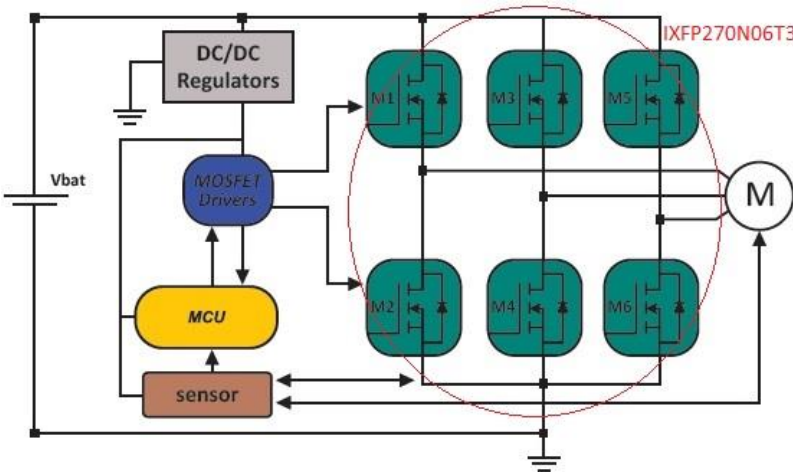
Application Circuits Legend			
	IXYSPOWER Efficiency Through Technology		zilog @intelsupport.com An IXYS Company
	IXYS Power MOSFETs		IXYS Power MOSFETs

Solar micro-inverter



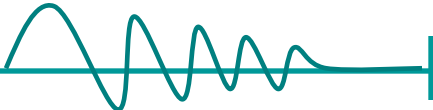
Synchronous buck converter

Brushless DC (BLDC) motor



Available Parts

Part Number	V _{DSS} (V)	I _{D25} (A)	R _{DS(on)} max. (mΩ)	Q _{g(on)} typ. (nC)	t _{rr} typ. (ns)	R _{thJC} max. (°C/W)	Package type
IXFA220N06T3	60	220	4	136	38	0.34	TO-263
IXFH220N06T3	60	220	4	136	38	0.34	TO-247
IXFP220N06T3	60	220	4	136	38	0.34	TO-220
IXFA270N06T3	60	270	3.1	200	47	0.31	TO-263
IXFH270N06T3	60	270	3.1	200	47	0.31	TO-247
IXFP270N06T3	60	270	3.1	200	47	0.31	TO-220



Easily found on www.ixys.com

Power Devices -> DISCRETE MOSFETs -> N-Channel: Trench-Gate Power MOSFETs -> (40V to 200V) TrenchT3 HiPerFETs



IXYS
Efficiency Through Technology

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IXYS CORPORATION > PRODUCT PORTFOLIO > POWER DEVICES

Part Number
Keyword
Cross Reference

Power Devices
Integrated Circuits
Microcontrollers
RF Power
System Stacks Assemblies
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Green Energy & Solar
IXYS Store

2200 V decoupling Diode...for Solar Panel Strings
High Voltage Rectifier Diode

N-CHANNEL: TRENCH-GATE POWER MOSFETs

Features:

- Trench Gate MOSFET Technology
- Break down voltages V_{DS} : 36V to 300V
- Current ratings I_{D25} : 12A to 660A
- Ultra-low on-state resistance $R_{DS(on)}$
- Superior avalanche ruggedness
- Junction temperature T_J up to 175°C
- International standard packages

Click below to filter by product sub family:

- (75V) 1st Generation Trench Gate Power MOSFETs
- (40V to 120V) TrenchT2 MOSFETs
- (100V to 300V) Trench HiPerFETs
- (75V to 175V) TrenchT2 HiPerFETs
- (55V to 280V) Trench MOSFETs
- (40V to 200V) TrenchT4 MOSFETs
- (40V to 200V) TrenchT3 HiPerFETs** Please click here

PartNumber	Division	V_{DS} Max (V)	I_D (cont) TC=25°C (A)	$R_{DS(on)}$ Max $T_J=25°C$ (Ω)	C_{iss} Typ (pF)	Q_g Typ (nC)	t_{rr} Typ (ns)	t_{rr} Max (ns)	P_D (W)	R_{thJC} Max (°C/W)	Config	Package Style	Status
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Normenclature

IX F A 220 N 06 T3

IXYS

3rd Generation Trench
Technology

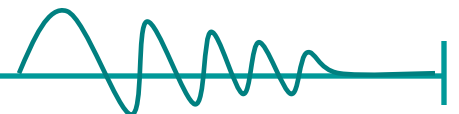
Voltage rating, 60V

N-channel MOSFET

Current rating, 220A

Package type, TO-263

HiPerFET™ MOSFET





The World OF IXYS

Industry Mind Share

Strong Product Promotion and Focus

Joint Strategic and Marketing Programs

Broad Technologies with Strong Power Solutions

Great Partner for Demand Creation

Creating New Products For Today and Tomorrow's Needs

IXYS POWER, IC, and Microcontroller Solutions