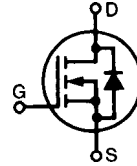


HiPerFET™ Power MOSFETs Q-Class

IXFH 26N60Q
IXFT 26N60Q

V_{DSS} = 600 V
I_{D25} = 26 A
R_{DS(on)} = 0.25 Ω

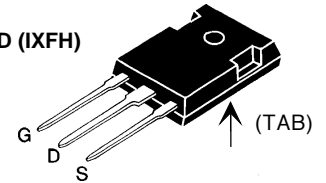
N-Channel Enhancement Mode
Avalanche Rated, High dv/dt, Low Q_g



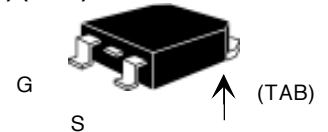
t_{rr} ≤ 250 ns

Symbol	Test Conditions	Maximum Ratings	
V _{DSS}	T _J = 25°C to 150°C	600	V
V _{DGR}	T _J = 25°C to 150°C; R _{GS} = 1 MΩ	600	V
V _{GS}	Continuous	±20	V
V _{GSM}	Transient	±30	V
I _{D25}	T _C = 25°C	26	A
I _{DM}	T _C = 25°C, pulse width limited by T _{JM}	104	A
I _{AR}	T _C = 25°C	26	A
E _{AR}	T _C = 25°C	45	mJ
E _{AS}	T _C = 25°C	1.5	J
dv/dt	I _S ≤ I _{DM} , di/dt ≤ 100 A/μs, V _{DD} ≤ V _{DSS} , T _J ≤ 150°C, R _G = 2 Ω	5	V/ns
P _D	T _C = 25°C	360	W
T _J		-55 ... +150	°C
T _{JM}		150	°C
T _{stg}		-55 ... +150	°C
T _L	1.6 mm (0.063 in) from case for 10 s	300	°C
M _d	Mounting torque	TO-247	1.13/10 Nm/lb.in.
Weight		TO-247	6 g
		TO-268	4 g

TO-247 AD (IXFH)



TO-268 (D3) (IXFT)



G = Gate
S = Source

D = Drain
TAB = Drain

Features

- Low gate charge
- International standard packages
- Epoxy meet UL 94 V-0, flammability classification
- Low R_{DS(on)} HDMOS™ process
- Rugged polysilicon gate cell structure
- Avalanche energy and current rated
- Fast intrinsic Rectifier

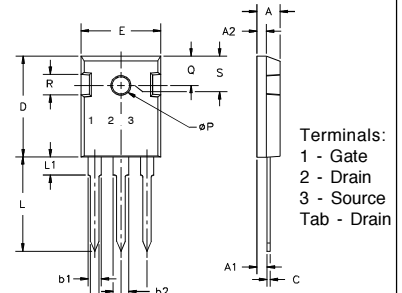
Advantages

- Easy to mount
- Space savings
- High power density

Symbol	Test Conditions	Characteristic Values (T _J = 25°C, unless otherwise specified)		
		min.	typ.	max.
V _{DSS}	V _{GS} = 0 V, I _D = 250 μA	600		V
V _{GS(th)}	V _{DS} = V _{GS} , I _D = 4 mA	2.5		4.5 V
I _{GSS}	V _{GS} = ±20 V _{DC} , V _{DS} = 0			±200 nA
I _{DSS}	V _{DS} = V _{DSS} , V _{GS} = 0 V			25 μA 1 mA
R _{DS(on)}	V _{GS} = 10 V, I _D = 0.5 I _{D25} Pulse test, t ≤ 300 μs, duty cycle d ≤ 2 %			0.25 Ω

Symbol	Test Conditions	Characteristic Values ($T_J = 25^\circ\text{C}$, unless otherwise specified)		
		min.	typ.	max.
g_{fs}	$V_{DS} = 10\text{ V}$, $I_D = 0.5 I_{D25}$, pulse test	14	22	S
C_{iss}	$V_{GS} = 0\text{ V}$, $V_{DS} = 25\text{ V}$, $f = 1\text{ MHz}$		5100	pF
C_{oss}			560	pF
C_{rss}			210	pF
$t_{d(on)}$	$V_{GS} = 10\text{ V}$, $V_{DS} = 0.5 V_{DSS}$, $I_D = 0.5 I_{D25}$ $R_G = 2.0\ \Omega$ (External),		30	ns
t_r			32	ns
$t_{d(off)}$			80	ns
t_f			16	ns
$Q_{g(on)}$	$V_{GS} = 10\text{ V}$, $V_{DS} = 0.5 V_{DSS}$, $I_D = 0.5 I_{D25}$		150	200 nC
Q_{gs}			34	nC
Q_{gd}			80	nC
R_{thJC}	TO-247			0.35 K/W
R_{thCK}			0.25	K/W

TO-247 AD (IXFH) Outline



Terminals:
1 - Gate
2 - Drain
3 - Source
Tab - Drain

Dim.	Millimeter		Inches	
	Min.	Max.	Min.	Max.
A	4.7	5.3	.185	.209
A ₁	2.2	2.54	.087	.102
A ₂	2.2	2.6	.087	.102
b	1.0	1.4	.040	.055
b ₁	1.65	2.13	.065	.084
b ₂	2.87	3.12	.113	.123
C	4	8	.016	.031
D	20.80	21.46	.819	.845
E	15.75	16.26	.610	.640
e	5.20	5.72	0.205	0.225
L	19.81	20.32	.780	.800
L1		4.50		.177
ØP	3.55	3.65	.140	.144
Q	5.89	6.40	0.232	0.252
R	4.32	5.49	.170	.216
S	6.15	BSC	.242	BSC

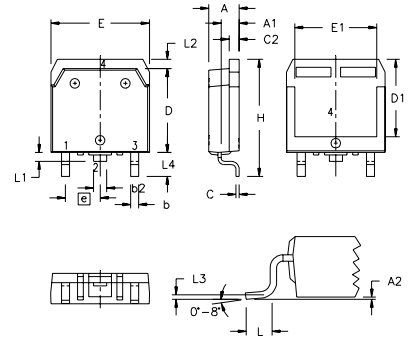
Source-Drain Diode

Characteristic Values

($T_J = 25^\circ\text{C}$, unless otherwise specified)

Symbol	Test Conditions	min.	typ.	max.
I_S	$V_{GS} = 0\text{ V}$			26 A
I_{SM}	Repetitive; pulse width limited by T_{JM}			104 A
V_{SD}	$I_F = I_S$, $V_{GS} = 0\text{ V}$, Pulse test, $t \leq 300\ \mu\text{s}$, duty cycle $d \leq 2\%$			1.5 V
t_{rr}	$I_F = I_S$, $-di/dt = 100\text{ A}/\mu\text{s}$, $V_R = 100\text{ V}$		1	250 ns
Q_{RM}			10	μC
I_{RM}				A

TO-268 Outline



Terminals:
1 - Gate
2 - Drain
3 - Source
Tab - Drain

SYM	INCHES		MILLIMETERS	
	MIN	MAX	MIN	MAX
A	.193	.201	4.90	5.10
A1	.106	.114	2.70	2.90
A2	.001	.010	0.02	0.25
b	.045	.057	1.15	1.45
b2	.075	.083	1.90	2.10
C	.016	.026	0.40	0.65
C2	.057	.063	1.45	1.60
D	.543	.551	13.80	14.00
D1	.488	.500	12.40	12.70
E	.624	.632	15.85	16.05
E1	.524	.535	13.30	13.60
e	.215	BSC	5.45	BSC
H	.736	.752	18.70	19.10
L	.094	.106	2.40	2.70
L1	.047	.055	1.20	1.40
L2	.039	.045	1.00	1.15
L3	.010	BSC	0.25	BSC
L4	.150	.161	3.80	4.10

IXYS reserves the right to change limits, test conditions, and dimensions.