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IXYS

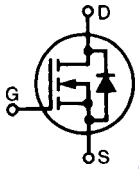
HiPerFET™ Power MOSFETs

Q-Class

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

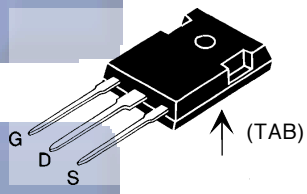
	V_{DSS}	I_{D25}	$R_{DS(on)}$
IXFH/IXFT 24N50Q	500 V	24 A	0.23 Ω
IXFH/IXFT 26N50Q	500 V	26 A	0.20 Ω

$t_{rr} \leq 250$ ns

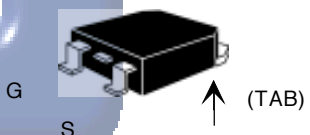


Symbol	Test Conditions		Maximum Ratings	
V_{DSS}	T_J = 25°C to 150°C		500	V
V_{DGR}	T_J = 25°C to 150°C; R_{GS} = 1 MΩ		500	V
V_{GS}	Continuous		±20	V
V_{GSM}	Transient		±30	V
I_{D25}	T_C = 25°C	24N50	24	A
		26N50	26	A
I_{DM}	T_C = 25°C, Note 1	24N50	96	A
		26N50	104	A
I_{AR}	T_C = 25°C	24N50	24	A
		26N50	26	A
E_{AR}	T_C = 25°C		30	mJ
E_{AS}	T_C = 25°C		1.5	J
dv/dt	$I_S \leq I_{DM}$, di/dt ≤ 100 A/µs, $V_{DD} \leq V_{DSS}$, $T_J \leq 150$°C, R_G = 2 Ω		5	V/ns
P_D	T_C = 25°C		300	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		1.13/10	Nm/lb.in.
Weight	TO-247		6	g
	TO-268		4	g

TO-247 AD (IXFH)



TO-268 (D3) (IXFT) Case Style



G = Gate, D = Drain,
S = Source, TAB = Drain

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		500			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				±100	nA
I_{DSS}	$V_{DS} = V_{DSS}$	T_J = 25°C			25	µA
	V_{GS} = 0 V	T_J = 125°C			1	mA
$R_{DS(on)}$	V_{GS} = 10 V, $I_D = 0.5\ I_{D25}$	24N50Q			0.23	Ω
	Note 2	26N50Q			0.20	Ω

Features

- IXYS advanced low Q_g process
- International standard packages
- Low $R_{DS\ (on)}$
- Unclamped Inductive Switching (UIS) rated
- Fast switching
- Molding epoxies meet UL 94 V-0 flammability classification

Advantages

- Easy to mount
- Space savings
- High power density

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