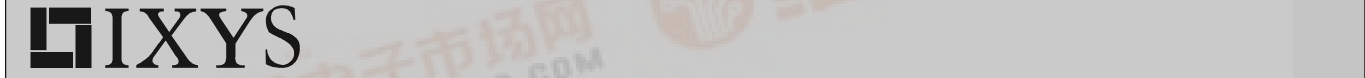
查询IXFR34N80供应商 捷多邦，专业PCB打样工厂，24小时加急出货



HiPerFET™ Power MOSFETs ISOPLUS247™

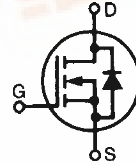
(Electrically Isolated Backside)

IXFR 34N80

V_{DSS} = 800 V
I_{D25} = 28 A
$R_{DS(on)}$ = 0.24 Ω
t_{rr} ≤ 250 ns

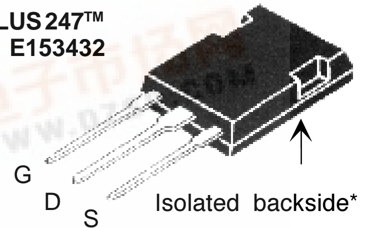
Single MOSFET Die
Avalanche Rated

Preliminary Data Sheet



Symbol	Test Conditions	Maximum Ratings	
V_{DSS}	T_J = 25°C to 150°C	800	V
V_{DGR}	T_J = 25°C to 150°C; R_{GS} = 1 MΩ	800	V
V_{GS}	Continuous	±20	V
V_{GSM}	Transient	±30	V
I_{D25}	T_C = 25°C (MOSFET chip capability)	28	A
I_{DM}	T_C = 25°C, Note 1	600	A
I_{AR}	T_C = 25°C	150	A
E_{AR}	T_C = 25°C	60	mJ
E_{AS}	T_C = 25°C	3	J
dv/dt	$I_S \le I_{DM}$, di/dt ≤ 100 A/µs, $V_{DD} \le V_{DSS}$ T_J ≤ 150°C, R_G = 2 Ω	5	V/ns
P_D	T_C = 25°C	400	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
V_{ISOL}	50/60 Hz, RMS t = 1 min	2500	V~
Weight		5	g

ISOPLUS 247™
E153432



G = Gate D = Drain
S = Source

* Patent pending

Symbol	Test Conditions		Characteristic Values (T_J = 25°C, unless otherwise specified) min.	typ.	max.
V_{DSS}	V_{GS} = 0 V, I_D = 3mA		150		V
$V_{GS(th)}$	$V_{DS} = V_{GS}$, I_D = 8mA		2.0		4.0 V
I_{GSS}	V_{GS} = ±20 V, V_{DS} = 0				±100 nA
I_{DSS}	$V_{DS} = V_{DSS}$ V_{GS} = 0 V	T_J = 25°C T_J = 125°C			100 µA 2 mA
$R_{DS(on)}$	V_{GS} = 10 V, $I_D = I_T$ Notes 2, 3				0.24 Ω

Features

- Silicon chip on Direct-Copper-Bond substrate
  - High power dissipation
  - Isolated mounting surface
  - 2500V electrical isolation
- Low drain to tab capacitance(<25pF)
- Low $R_{DS(on)}$ HDMOS™ process
- Rugged polysilicon gate cell structure
- Unclamped Inductive Switching (UIS) rated
- Fast intrinsic Rectifier

Applications

- DC-DC converters
- Battery chargers
- Switched-mode and resonant-mode power supplies
- DC choppers
- AC motor control

Advantages

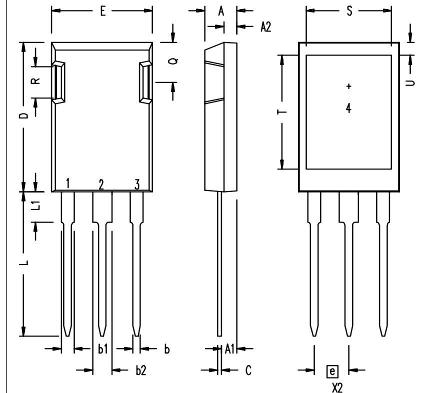
- Easy assembly
- Space savings
- High power density

Symbol	Test Conditions		Characteristic Values (T_J = 25°C, unless otherwise specified) min.	typ.	max.	
g_{fs}	V_{DS} = 10 V; I_D = I_T	Notes 2, 3	20	35		S
C_{iss}	V_{GS} = 0 V, V_{DS} = 25 V, f = 1 MHz			7500		pF
C_{oss}				920		pF
C_{rss}				220		pF
$t_{d(on)}$	V_{GS} = 10 V, V_{DS} = 0.5 V_{DSS}, I_D = I_T R_G = 1 Ω (External), Notes 2, 3			45		ns
t_r				45		ns
$t_{d(off)}$				100		ns
t_f				40		ns
$Q_{g(on)}$	V_{GS} = 10 V, V_{DS} = 0.5 V_{DSS}, I_D = I_T Notes 2, 3			270		nC
Q_{gs}				60		nC
Q_{gd}				140		nC
R_{thJC}					0.30	K/W
R_{thCK}				0.15		K/W

Source-Drain Diode Symbol	Test Conditions	Characteristic Values (T_J = 25°C, unless otherwise specified) min.	typ.	max.	
I_S	V_{GS} = 0 V			34	A
I_{SM}	Repetitive; Note 1			136	A
V_{SD}	I_F = I_T, V_{GS} = 0 V, Notes 2, 3			1.5	V
t_{rr}	I_F = I_T, -di/dt = 100 A/µs, V_R = 100 V			250	ns
Q_{RM}			1.4		µC
I_{RM}			10		A

Note: 1. Pulse width limited by T_{JM}
2. Pulse test, t ≤ 300 µs, duty cycle d ≤ 2 %
3. I_T = 17A

ISOPLUS 247 OUTLINE



1 Gate, 2 Drain (Collector)
3 Source (Emitter)
4 no connection

Dim.	Millimeter Min.	Millimeter Max.	Inches Min.	Inches Max.
A	4.83	5.21	.190	.205
A_1	2.29	2.54	.090	.100
A_2	1.91	2.16	.075	.085
b	1.14	1.40	.045	.055
b_1	1.91	2.13	.075	.084
b_2	2.92	3.12	.115	.123
C	0.61	0.80	.024	.031
D	20.80	21.34	.819	.840
E	15.75	16.13	.620	.635
e	5.45 BSC		.215 BSC	
L	19.81	20.32	.780	.800
L1	3.81	4.32	.150	.170
Q	5.59	6.20	.220	.244
R	4.32	4.83	.170	.190

See IXFN 34N80 data sheet for characteric curves.

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

IXYS MOSFETS and IGBTs are covered by one or more of the following U.S. patents: 4,835,592 4,881,106 5,017,508 5,049,961 5,187,117 5,486,715