Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!

Contact us

Tel: +86-755-8981 8866 Fax: +86-755-8427 6832
Email & Skype: info@chipsmall.com Web: www.chipsmall.com
Address: A1208, Overseas Decoration Building, #122 Zhenhua RD., Futian, Shenzhen, China

IXYS

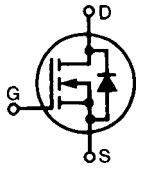
HiPerFET™ Power MOSFETs ISOPLUS247™ Q-CLASS

(Electrically Isolated Back Surface)

IXFR 26N60Q

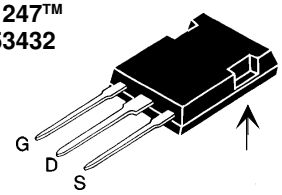
V_{DSS} = 600 V
I_{D25} = 23 A
$R_{DS(on)}$ = 250 mΩ
$t_{rr} \leq$ 250 ns

N-Channel Enhancement Mode
Avalance Rated, High dV/dt
Low Gate Charge and Capacitances



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	23	A
I_{DM}	T_C = 25°C, Note 1	92	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	$I_S \leq I_{DM}$, 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	310	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	250	°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

Features

- Silicon chip on Direct-Copper-Bond substrate
  - High power dissipation
  - Isolated mounting surface
  - 2500V electrical isolation
- IXYS advanced low Q_g process
- Low gate charge and capacitances
  - easier to drive
  - faster switching
- Low drain to tab capacitance(<30pF)
- Low $R_{DS\ (on)}$ HDMOS™ process
- Rugged polysilicon gate cell structure
- Rated for Unclamped Inductive Load Switching (UIS)
- Fast intrinsic Rectifier

Applications

- DC-DC converters
- Battery chargers
- Switched-mode and resonant-mode power supplies
- DC choppers
- AC & DC 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.	
V_{DSS}	V_{GS} = 0 V, I_D = 250μA	600			V
$V_{GS(th)}$	$V_{DS} = V_{GS}$, I_D = 4mA	2.5		4.5	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		25	μA
		T_J = 125°C		1	mA
$R_{DS(on)}$	V_{GS} = 10 V, $I_D = I_T$ Notes 2, 3			250	mΩ

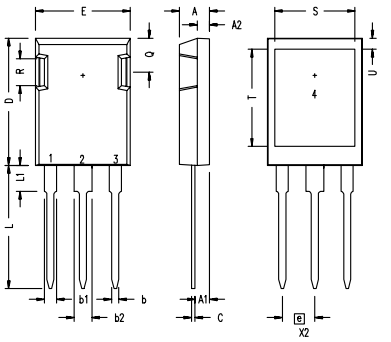
Symbol	Test Conditions (T_J = 25°C, unless otherwise specified)	min.	typ.	max.	
g_{fs}	V_{DS} = 10 V; I_D = I_T Notes 2, 3	14	22		S
C_{iss}	V_{GS} = 0 V, V_{DS} = 25 V, f = 1 MHz		5100		pF
C_{oss}			560		pF
C_{rss}			210		pF
$t_{d(on)}$	V_{GS} = 10 V, V_{DS} = 0.5 • V_{DSS}, I_D = I_T R_G = 2.0 Ω (External), Notes 2, 3		30		ns
t_r			32		ns
$t_{d(off)}$			80		ns
t_f			15		ns
$Q_{g(on)}$	V_{GS} = 10 V, V_{DS} = 0.5 • V_{DSS}, I_D = I_T Notes 2, 3		150	200	nC
Q_{gs}			34		nC
Q_{gd}			80		nC
R_{thJC}				0.4	K/W
R_{thCK}			0.15		K/W

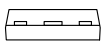
Source-Drain Diode

Symbol	Test Conditions (T_J = 25°C, unless otherwise specified)	min.	typ.	max.	
I_S	V_{GS} = 0 V			26	A
I_{SM}	Repetitive; Note 1			104	A
V_{SD}	I_F = I_T, V_{GS} = 0 V, Notes 2, 3			1.5	V
t_{rr}	I_F = 50A,-di/dt = 100 A/µs, V_R = 100 V			250	ns
Q_{RM}			1.0		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 = 13A

ISOPLUS 247 (IXFR) OUTLINE





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

Dim.	Millimeter Min.	Max.	Inches Min.	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
S	13.21	13.72	.520	.540
T	15.75	16.26	.620	.640
U	1.65	3.03	.065	.080