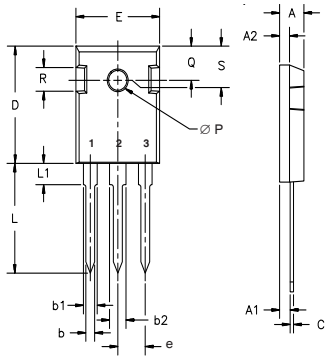
Symbol	Test Conditions (T_J = 25°C, unless otherwise specified)	Characteristic Values Min.	Typ.	Max.	
g_{fs}	$I_C = I_{C110}$, V_{CE} = 10V, Note 1	18	30		S
C_{ies}	V_{CE} = 25V, V_{GE} = 0V, f = 1MHz		2320		pF
C_{oes}			176		pF
C_{res}			24		pF
Q_g	$I_C = I_{C110}$, V_{GE} = 15V, V_{CE} = 0.5 • V_{CES}		62		nC
Q_{ge}			11		nC
Q_{gc}			23		nC
$t_{d(on)}$	**Inductive load, T_J = 25°C**		19		ns
t_{ri}	I_C = 24A, V_{GE} = 15V		24		ns
E_{on}	V_{CE} = 400V, R_G = 10Ω		0.34		mJ
$t_{d(off)}$			125	200	ns
t_{fi}			100	160	ns
E_{off}			0.65	1.2	mJ
$t_{d(on)}$	**Inductive load, T_J = 125°C**		19		ns
t_{ri}	I_C = 24A, V_{GE} = 15V		26		ns
E_{on}	V_{CE} = 400V, R_G = 10Ω		0.6		mJ
$t_{d(off)}$			180		ns
t_{fi}			170		ns
E_{off}			1.0		mJ
R_{thJC}				0.66	°C/W
R_{thCS}			0.21		°C/W

TO-247 (IXGH) Outline



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

Dim.	Millimeter Min.	Max.	Inches Min.	Max.
A	4.7	5.3	.185	.209
A_1	2.2	2.54	.087	.102
A_2	2.2	2.6	.059	.098
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	

Reverse Diode (FRED)

Symbol	Test Conditions (T_J = 25°C, unless otherwise specified)	Characteristic Values Min.	Typ.	Max.	
V_F	I_F = 24A, V_{GE} = 0V, Note 1			2.5	V
	T_J = 150°C			1.7	V
I_{RM}	I_F = 24A, V_{GE} = 0V, $-di_F/dt$ = 100A/µs		5		A
	V_R = 100V				
t_{rr}	I_F = 1A, $-di_F/dt$ =100A/µs, V_R = 30V		25		ns
	T_J= 100°C		100		ns
R_{thJC}				1.0	K/W

Note 1: Pulse test, t ≤ 300µs; duty cycle, d ≤ 2%.

ADVANCE TECHNICAL INFORMATION

The product presented herein is under development. The Technical Specifications offered are derived from a subjective evaluation of the design, based upon prior knowledge and experience, and constitute a "considered reflection" of the anticipated result. IXYS reserves the right to change limits, test conditions, and dimensions without notice.

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IXYS MOSFETs and IGBTs are covered by one or moreof the following U.S. patents: 4,835,592 4,850,072 4,881,106 4,931,844 5,017,508 5,034,796 5,049,961 5,063,307 5,187,117 5,237,481 5,381,025 5,486,715 6,162,665 6,259,123 B1 6,306,728 B1 6,404,065 B1 6,534,343 6,583,505 6,683,344 6,710,405 B2 6,710,463 6,727,585 6,759,692 6,771,478 B2 7,005,734 B2 7,063,975 B2 7,071,537 7,157,338B2