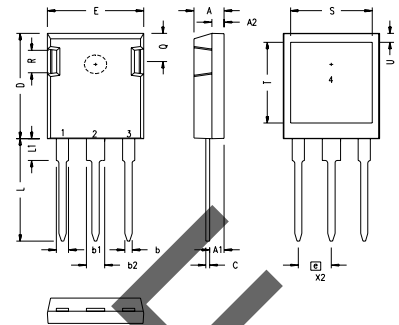


Symbol	Test Conditions	Characteristic Values ( $T_J = 25^\circ\text{C}$ , unless otherwise specified)		
		min.	typ.	max.
$g_{fs}$	$I_C = I_{C25}; V_{CE} = 10\text{ V}$ Note 2	25	33	S
$C_{ies}$	$V_{CE} = 25\text{ V}, V_{GE} = 0\text{ V}, f = 1\text{ MHz}$		3500	pF
$C_{oes}$			250	pF
$C_{res}$			40	pF
$Q_g$	$I_C = I_{C90}, V_{GE} = 15\text{ V}, V_{CE} = 0.5 V_{CES}$		155	nC
$Q_{ge}$			30	nC
$Q_{gc}$			51	nC
$t_{d(on)}$	Inductive load, $T_J = 25^\circ\text{C}$ $I_C = I_{C90}, V_{GE} = 15\text{ V}$ $R_G = 2.7\ \Omega, V_{CE} = 0.8 V_{CES}$ Note 3		45	ns
$t_{ri}$			38	ns
$t_{d(off)}$			270	500 ns
$t_{fi}$			250	500 ns
$E_{off}$			15	25 mJ
$t_{d(on)}$	Inductive load, $T_J = 125^\circ\text{C}$ $I_C = I_{C90}, V_{GE} = 15\text{ V}$ $R_G = 2.7\ \Omega, V_{CE} = 0.8 V_{CES}$ Note 3		48	ns
$t_{ri}$			42	ns
$E_{on}$			6.0	mJ
$t_{d(off)}$			360	ns
$t_{fi}$			560	ns
$E_{off}$			22	mJ
$R_{thJC}$				0.35 K/W
$R_{thCK}$			0.15	K/W

PLUS247 Outline (IXGX)



SYM	INCHES		MILLIMETERS	
	MIN	MAX	MIN	MAX
A	.190	.205	4.83	5.21
A1	.090	.100	2.29	2.54
A2	.075	.085	1.91	2.16
b	.045	.055	1.14	1.40
b1	.075	.084	1.91	2.13
b2	.115	.123	2.92	3.12
C	.024	.031	0.61	0.80
D	.819	.840	20.80	21.34
E	.620	.635	15.75	16.13
e	.215 BSC		5.45 BSC	
L	.780	.800	19.81	20.32
L1	.150	.170	3.81	4.32
Q	.220	.244	5.59	6.20
R	.170	.190	4.32	4.83
S	.520	.540	13.21	13.72
T	.620	.640	15.75	16.26
U	.065	.080	1.65	2.03

- 1 - GATE  
2 - DRAIN (COLLECTOR)  
3 - SOURCE (EMITTER)  
4 - NO CONNECTION

NOTE: This drawing will meet all dimensions requirement of JEDEC outline TO-247AD except screw hole.

Symbol	Test Conditions	Characteristic Values ( $T_J = 25^\circ\text{C}$ , unless otherwise specified)		
		min.	typ.	max.
$V_F$	$I_F = 70\text{ A}, V_{GE} = 0\text{ V}$ , Pulse test, $t \leq 300\ \mu\text{s}$ , duty cycle $d \leq 2\%$			2.7 V
$I_{RM}$	$I_F = 50\text{ A}, V_{GE} = 0\text{ V}, -di_F/dt = 800\text{ A}/\mu\text{s}$ $V_R = 600\text{ V}$		50	A
$t_{rr}$			150	ns
$R_{thJC}$				0.4 K/W

- Notes: 1. Device must be heatsunk for high temperature leakage current measurements to avoid thermal runaway.
2. Pulse test,  $t \leq 300\ \mu\text{s}$ , duty cycle  $\leq 2\%$
3. Switching times may increase for  $V_{CE}$  (Clamp)  $> 0.8 \cdot V_{CES}$ , higher  $T_J$  or increased  $R_G$ .
4. See DH60-18A and IXGH32N170A datasheets for additional characteristics

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 6,306,728B1 6,259,123B1 6,306,728B1 4,850,072 4,931,844 5,034,796 5,063,307 5,237,481 5,381,025 6,404,065B1 6,162,665 6,534,343



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