



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!



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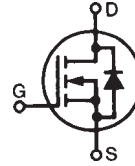
PolarHV™
Power MOSFET
ISOPLUS220™

IXTC 26N50P

V_{DSS} = 500 V
I_{D25} = 15 A
R_{DS(on)} ≤ 260 mΩ

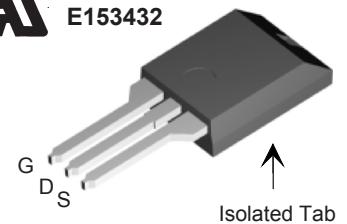
(Electrically Isolated Tab)

N-Channel Enhancement Mode
 Avalanche Rated



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	±30	V
V _{GSM}	Transient	±40	V
I _{D25}	T _C = 25° C	15	A
I _{DM}	T _C = 25° C, pulse width limited by T _{JM}	78	A
I _{AR}	T _C = 25° C	26	A
E _{AR}	T _C = 25° C	40	mJ
E _{AS}	T _C = 25° C	1.0	J
dv/dt	I _S ≤ I _{DM} , di/dt ≤ 100 A/μs, V _{DD} ≤ V _{DSS} , T _J ≤ 150° C, R _G = 4 Ω	10	V/ns
P _D	T _C = 25° C	130	W
T _J		-55 ... +150	°C
T _{JM}		150	°C
T _{stg}		-55 ... +150	°C
T _L	1.6 mm (0.062 in.) from case for 10 s	300	°C
V _{ISOL}	50/60 Hz, RMS, t = 1, leads-to-tab	2500	V~
F _C	Mounting Force	11..65/2.5..15	N/lb
Weight		2	g

ISOPLUS220™ (IXTC)
E153432



G = Gate D = Drain
 S = Source

Features

- † Silicon chip on Direct-Copper-Bond substrate
- High power dissipation
- Isolated mounting surface
- 2500V electrical isolation
- † Low drain to tab capacitance(<30pF)

Applications

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

Advantages

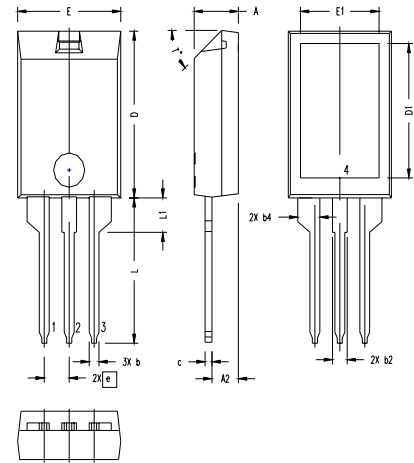
- † Easy assembly
- † Space savings
- † High power density

Symbol	Test Conditions (T _J = 25° C, unless otherwise specified)	Characteristic Values		
		Min.	Typ.	Max.
BV _{DSS}	V _{GS} = 0 V, I _D = 250 μA	500		V
V _{GS(th)}	V _{DS} = V _{GS} , I _D = 250μA	3.0		5.5 V
I _{GSS}	V _{GS} = ±30 V _{DC} , V _{DS} = 0			±100 nA
I _{DSS}	V _{DS} = V _{DSS} V _{GS} = 0 V T _J = 125° C			25 μA 250 μA
R _{DS(on)}	V _{GS} = 10 V, I _D = 13A Pulse test, t ≤ 300 μs, duty cycle d ≤ 2 %			260 mΩ

Symbol	Test Conditions	Characteristic Values		
		(T _J = 25°C, unless otherwise specified)		
		Min.	Typ.	Max.
g_{fs}	V _{DS} = 10 V; I _D = 13A, pulse test	20	28	S
C_{iss}	V _{GS} = 0 V, V _{DS} = 25 V, f = 1 MHz		3600	pF
C_{oss}			380	pF
C_{rss}			48	pF
t_{d(on)}	V _{GS} = 10 V, V _{DS} = 0.5 V _{DSS} , I _D = 13A R _G = 4 Ω (External)		20	ns
t_r			25	ns
t_{d(off)}			58	ns
t_f			20	ns
Q_{g(on)}	V _{GS} = 10 V, V _{DS} = 0.5 V _{DSS} , I _D = 13A		65	nC
Q_{gs}			20	nC
Q_{gd}			20	nC
R_{thJC}				0.95°C/W
R_{thCS}		0.21		°C/W

Symbol	Test Conditions	Characteristic Values		
		(T _J = 25°C, unless otherwise specified)		
		Min.	Typ.	Max.
I_S	V _{GS} = 0 V			15 A
I_{SM}	Repetitive			78 A
V_{SD}	I _F = I _S , V _{GS} = 0 V, Pulse test, t ≤ 300 μs, duty cycle d ≤ 2 %			1.5 V
t_{rr}	I _F = 25 A -di/dt = 100 A/μs		400	ns
Q_{RM}		V _R = 100 V, V _{GS} = 0 V		5.0

ISOPLUS220 Outline



SYM	INCHES		MILLIMETERS	
	MIN	MAX	MIN	MAX
A	.157	.197	4.00	5.00
A2	.098	.118	2.50	3.00
b	.035	.051	0.90	1.30
b2	.049	.065	1.25	1.65
b4	.093	.100	2.35	2.55
c	.028	.039	0.70	1.00
D	.591	.630	15.00	16.00
D1	.472	.512	12.00	13.00
E	.394	.433	10.00	11.00
E1	.295	.335	7.50	8.50
e	.100 BASIC		2.55 BASIC	
L	.512	.571	13.00	14.50
L1	.118	.138	3.00	3.50
T*			42.5°	47.5°

NOTE:

- Bottom heatsink (Pin 4) is electrically isolated from Pin 1, 2, or 3.
- This drawing will meet dimensional requirement of JEDEC SS Product Outline 10-273 except D and D1 dimension.

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	4,931,844	5,049,961	5,237,481	6,162,665	6,404,065 B1	6,683,344	6,727,585
	4,850,072	5,017,508	5,063,307	5,381,025	6,259,123 B1	6,534,343	6,710,405B2	6,759,692
	4,881,106	5,034,796	5,187,117	5,486,715	6,306,728 B1	6,583,505	6,710,463	6,771,478 B2

Fig. 1. Output Characteristics @ 25°C

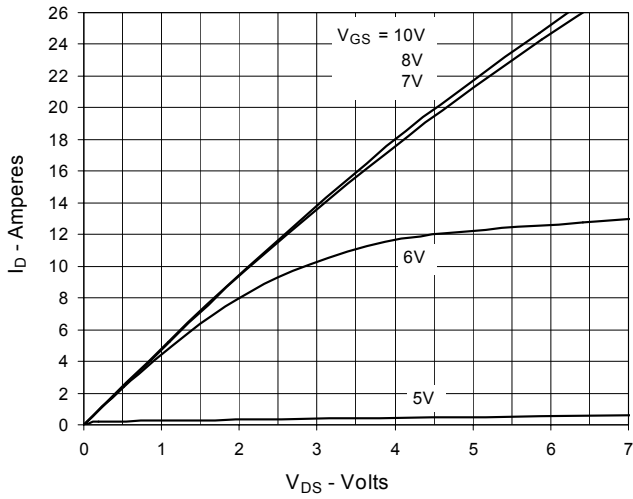


Fig. 2. Extended Output Characteristics @ 25°C

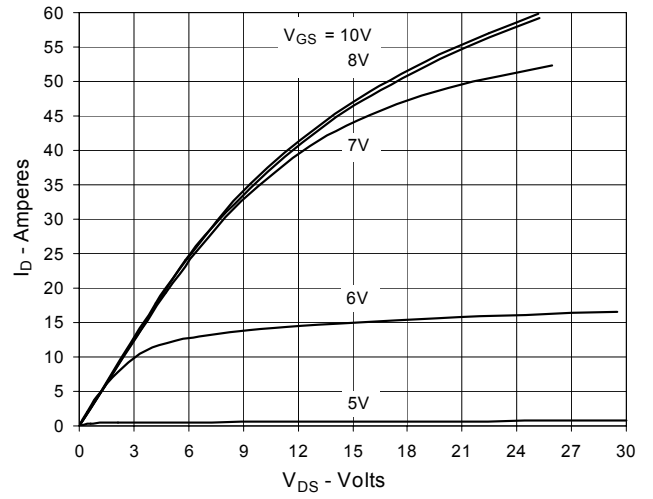


Fig. 3. Output Characteristics @ 125°C

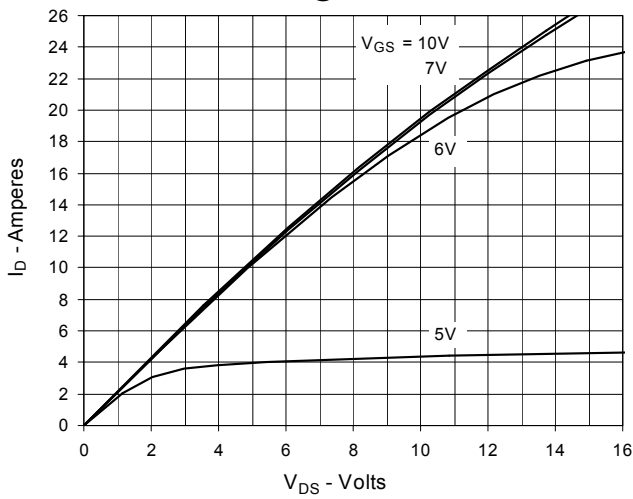


Fig. 4. $R_{DS(on)}$ Normalized to $I_D = 13A$ Value vs. Junction Temperature

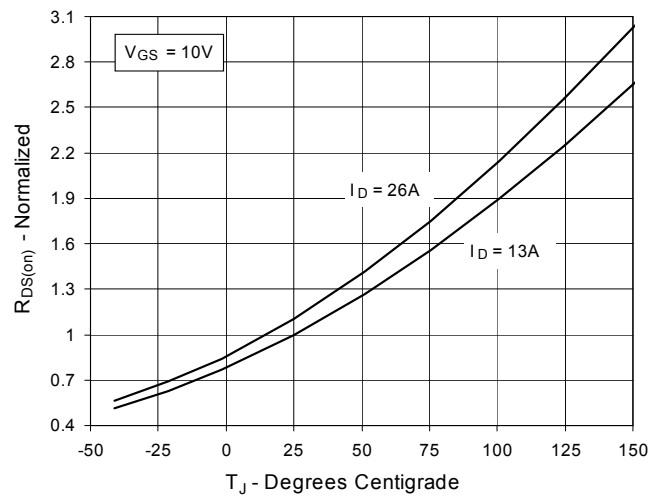


Fig. 5. $R_{DS(on)}$ Normalized to $I_D = 13A$ Value vs. Drain Current

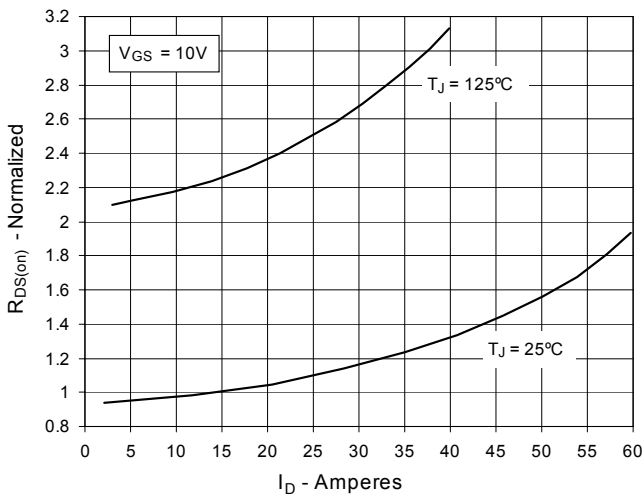


Fig. 6. Maximum Drain Current vs. Case Temperature

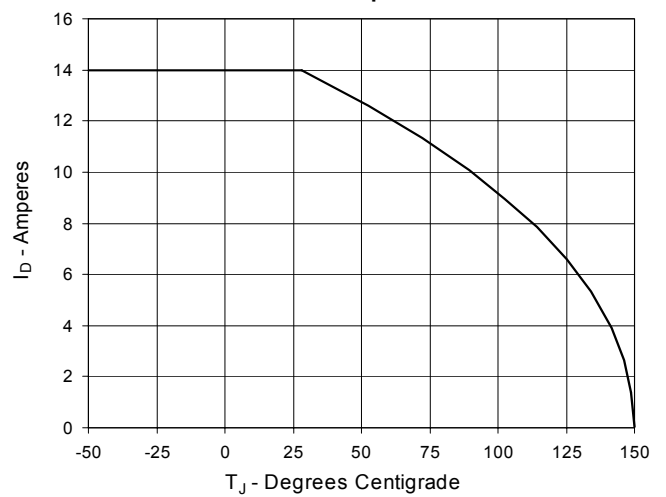


Fig. 7. Input Admittance

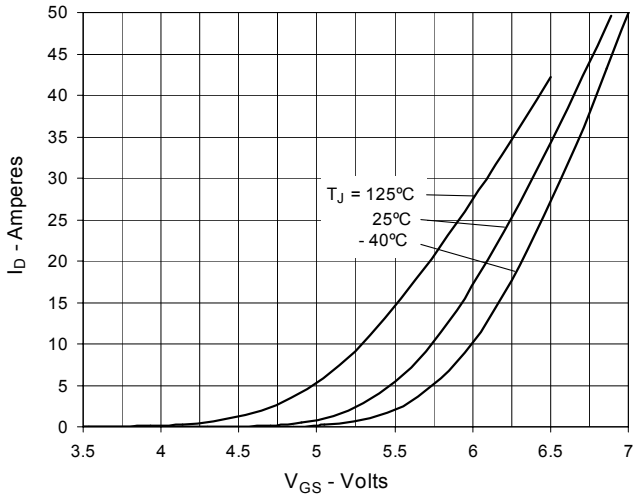


Fig. 8. Transconductance

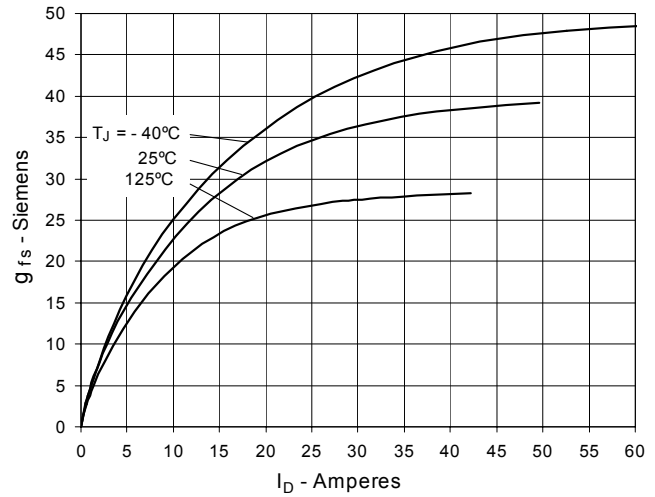


Fig. 9. Forward Voltage Drop of Intrinsic Diode

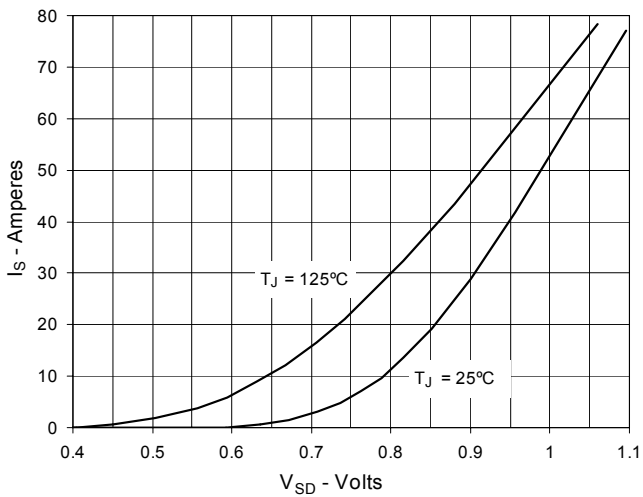


Fig. 10. Gate Charge

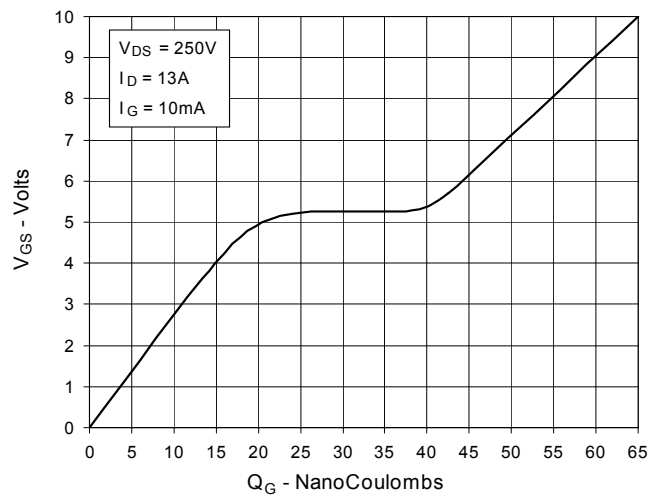


Fig. 11. Capacitance

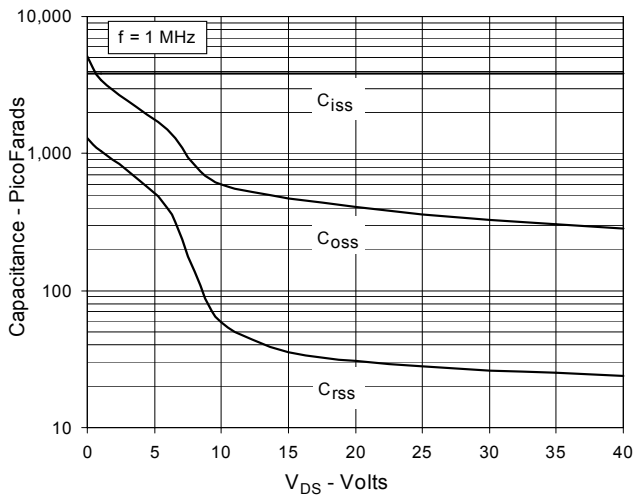


Fig. 12. Forward-Bias Safe Operating Area

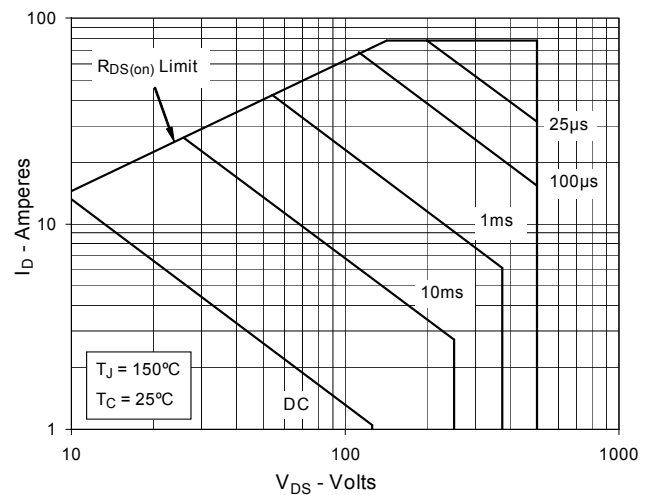


Fig. 13. Maximum Transient Thermal Resistance

