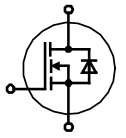
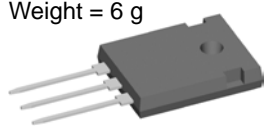
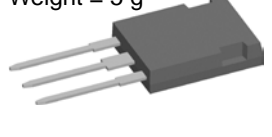
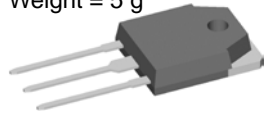



Linear Power MOSFETs



High Voltage SOA

Part Type	V _{DSS}	I _{D(cont)} T _C = 25°C	R _{DS(on)} T _J = 25°C	C _{iss} typ.	Q _g typ.	t _{rr} typ.	R _{thJC}	P _D	Fig. No.	Package style
➤ New	V	A	Ω	pF	nC	ns	K/W	W		Outline drawings on pages O-30...O-52
➤ IXTH 30N50L2	500	30	0.20	10200	240	500	0.31	400	X014a	 TO-247AD X014a Weight = 6 g
➤ IXTQ 30N50L2		30	0.20	10200	240	500	0.31	400	X017a	
➤ IXTT 30N50L2		30	0.20	10200	240	500	0.31	400	X019	
IXTH 24N50L		24	0.30	2500	160	500	0.31	400	X014a	
IXTK 46N50L		46	0.16	7000	260	600	0.18	700	X020a	
IXTN 46N50L		46	0.16	7000	260	600	0.18	700	X027a	
IXTX 46N50L		46	0.16	7000	260	600	0.18	700	X015a	
IXTB 62N50L		62	0.10	11500	550	500	0.156	800	X021a	
IXTN 62N50L		62	0.10	11500	550	500	0.156	800	X027a	
IXTH 12N100L	1000	12	1.30	2500	155	1000	0.31	400	X014a	 TO-3P X017a Weight = 5 g
IXTK 22N100L		22	0.60	7050	270	1000	0.18	700	X020a	
IXTN 22N100L		22	0.60	7050	270	1000	0.18	700	X027a	
IXTX 22N100L		22	0.60	7050	270	1000	0.18	700	X015a	
IXTB 30N100L		30	0.45	13200	545	1000	0.156	800	X021a	
IXTN 30N100L		30	0.45	13700	545	1000	0.156	800	X027a	
➤ IXTK 17N120L	1200	17	0.99	8000	270	1350	0.18	700	X020a	 TO-264 X019 Weight = 5 g
➤ IXTN 17N120L		17	0.99	8000	270	1350	0.18	700	X027a	
➤ IXTN 8N150L	1500	8	5.00	7900	250	790	0.18	700	X027a	 miniBLOC X027a Weight = 30 g

Unlike "normal" MOSFET operation where the transistor functions like an on/off switch, linear applications will subject the transistor to high thermal stress due to the simultaneous occurrence of high drain voltage and current.

This is the reason that some types of MOSFETs are not recommended for use in linear applications. However, IXYS' new Linear Power MOSFETs have been specifically designed to handle the types of tough "linear operating conditions" that are frequently being encountered in the consumer and industrial markets.

Some common applications include linear power supplies, class A amplifiers, electronic loads, programmable resistors and motor control. Optimizations were made to the fundamental planar cell design in order to maximize the power dissipation capabilities of this Linear Power MOSFET family.

The Forward Bias Safe Operating Area (FBSOA) characteristic is one such targeted parameter that was optimized, which essentially allowed for a larger operating „window“ as dictated by the power limitations of the device.

This extended power window translates to improved ruggedness and power dissipation capabilities during the high thermal stress conditions posed by the linear operating environment. IXYS provides a wide selection of Linear Power MOSFETs.

Voltages include 500 V, 1000 V and 1200V , while currents range from 17 A to 62 A. These Power MOSFETs are offered in a number of different packages including the standard TO-247 and a variety of „plus“ sizes.

These new devices are also compatible with IXYS ISOPLUS™ packages, which provide integral backside case isolation.