




MOSPOWER Selector Guide (Continued)

N-Channel MOSPOWER (Continued)

Device	Breakdown Voltage (Volts)	r _{DS(on)} (Ohms)	I _D Continuous (Amps)	Power Dissipation (Watts)	Part Number
 TO-220AB	200	0.18	18.0	125	IRF640
	200	0.22	16.0	125	IRF642
	200	0.4	9.0	75	IRF630
	200	0.6	8.0	75	IRF632
	200	0.8	5.0	40	IRF620
	200	1.2	4.0	40	IRF622
	170	6.0	1.4	20	VN1706D
	150	0.18	18.0	125	IRF641
	150	0.22	16.0	125	IRF643
	150	0.4	9.0	75	IRF631
	150	0.6	8.0	75	IRF633
	150	0.8	5.0	40	IRF621
	150	1.2	4.0	40	IRF623
	120	0.18	14.0	75	VN1200D
	120	0.25	12.0	75	VN1201D
	120	6.0	1.4	20	VN1206D
	100	0.085	27.0	125	IRF540
	100	0.11	24.0	125	IRF542
	100	0.18	14.0	75	VN1000D
	100	0.18	14.0	75	IRF530
	100	0.25	12.0	75	VN1001D
	100	0.25	12.0	75	IRF532
	100	0.30	8.0	40	IRF520
	100	0.40	7.0	40	IRF522
	80	0.18	14.0	75	VN0800D
	80	0.25	12.0	75	VN0801D
	80	4.0	1.7	20	VN88AD
	80	4.5	1.6	20	VN89AD
	60	0.085	27.0	125	IRF541
	60	0.11	24.0	125	IRF543
	60	0.12	18.0	75	VN0600D
	60	0.15	16.0	75	VN0601D
	60	0.18	14.0	75	IRF531
	60	0.25	12.0	75	IRF533
	60	0.30	8.0	40	IRF521
60	0.40	7.0	40	IRF523	
60	3.0	1.9	20	VN66AD	
60	3.5	1.8	20	VN67AD	
40	0.12	18.0	75	VN0400D	
40	0.15	16.0	75	VN0401D	
40	3.0	1.9	20	VN46AD	
40	5.0	1.5	20	VN40AD	
30	1.2	2.5	20	VN0300D	
 TO-202AA	80	4.0	1.5	15	VN88AF
	80	4.5	1.4	15	VN89AF
	80	5.0	1.3	15	VN80AF
	60	3.0	1.7	15	VN66AF
	60	3.5	1.6	15	VN67AF
	40	3.0	1.6	15	VN46AF
	40	5.0	1.3	15	VN40AF
 TO-39	240	6.0	0.8	6.25	VN2406B
	170	6.0	0.8	6.25	VN1706B
	120	6.0	0.8	6.25	VN1206B
	100	0.3	6.0	20	IRFF120
	100	0.4	5.0	20	IRFF122
	90	4.0	0.9	6.25	2N6661
	90	4.5	0.9	6.25	VN99AB
	90	5.0	0.8	6.25	VN90AB
	60	0.3	6.0	20	IRFF121
	60	0.4	5.0	20	IRFF123
	60	3.0	1.1	6.25	2N6660
	60	3.5	1.0	6.25	VN67AB
	35	1.8	1.4	6.25	2N6659
35	2.5	1.2	6.25	VN35AB	

IRF130 ■ IRF131 ■ IRF132 ■ IRF133
 IRF530 ■ IRF531 ■ IRF532 ■ IRF533



100V N-Channel Enhancement Mode MOSPOWER

These power FETs are designed especially for audio amplifiers, power converters, and drivers for motors, solenoids and relays.

FEATURES

- No Second Breakdown
- High Input Impedance
- Internal Drain-Source Diode
- Very Rugged: Excellent SOA
- Extremely Fast Switching

BENEFITS

- Reduced Component Count
- Improved Performance
- Simpler Designs
- Improved Reliability

Product Summary

Part Number	BV _{DSS}	R _{DS(ON)}	I _D	Package
IRF130	100V	0.18Ω	14A	TO-3
IRF131	60V		12A	
IRF132	100V	0.25Ω	14A	
IRF133	60V		12A	
IRF530	100V	0.18Ω	14A	TO-220AB
IRF531	60V		12A	
IRF532	100V	0.25Ω	14A	
IRF533	60V		12A	

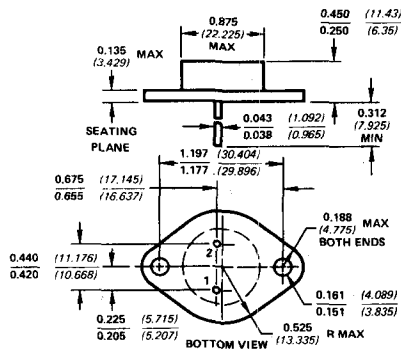


ABSOLUTE MAXIMUM RATINGS (T_C = 25°C unless otherwise noted)

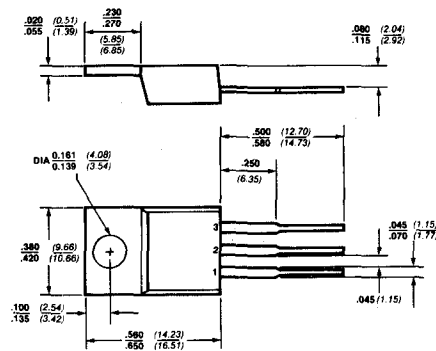
Drain-Source Voltage	
IRF130,132; IRF530,532	100V
IRF131,133; IRF531,533	60V
Drain-Gate Voltage	
IRF130,132; IRF530,532	100V
IRF131,133; IRF531,533	60V
Drain Current Continuous	
IRF130, 131, 530, 531	± 14A
IRF132, 133, 532, 533	± 12A

Drain Current	
Pulsed (80μs to 300μs, 1% duty cycle)	± 56A
Gate Current (Peak)	± 3A
Gate-Source Voltage	± 40V
Total Power Dissipation	75W
Linear Derating Factor	0.6W/°C
Operating and Storage Temperature	-55°C to +150°C

PACKAGE DIMENSIONS



PIN 1 — Gate
 PIN 2 — Source
 CASE — Drain



PIN 1 — Gate
 PIN 2 & TAB — Drain
 PIN 3 — Source

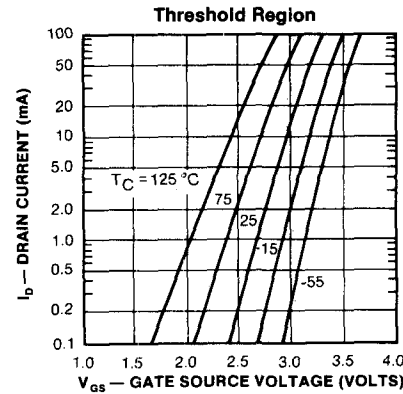
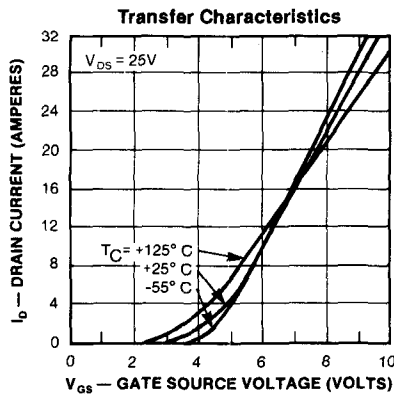
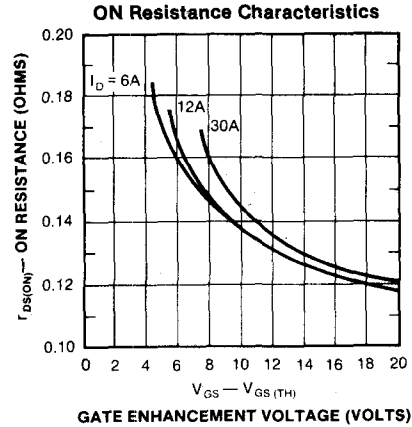
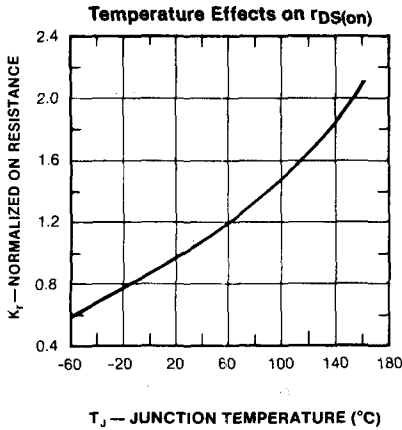
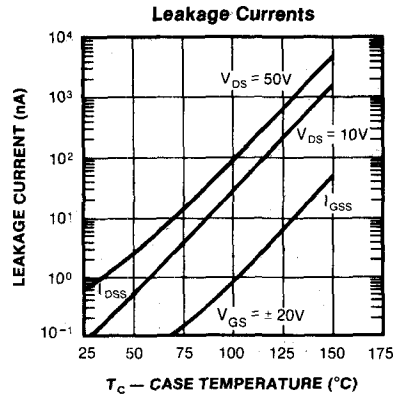
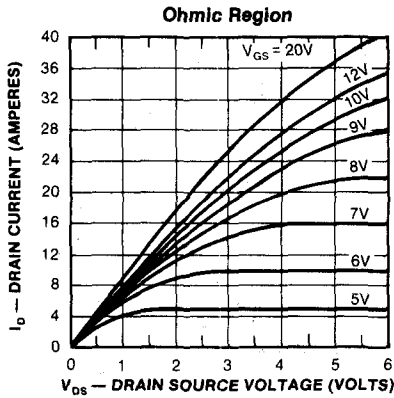
TYPICAL STATIC CHARACTERISTICS

VNDA12

VNDA12

(Pulse width 80 μ s—300 μ s, Duty cycle 1%, $T_C=25^\circ\text{C}$)

Part Numbers: VN0800A, VN0801A, VN1000A, VN1001A, VN1200A, VN1201A, VN0800D, VN0801D, VN1000D, VN1001D, VN1200D, VN1201D, IRF130, IRF131, IRF132, IRF133, IRF530, IRF531, IRF532, IRF533



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TYPICAL CHARACTERISTICS (Cont'd)

VNDA12

Part Numbers: VN0800A, VN0801A, VN1000A, VN1001A, VN1200A, VN1201A, VN0800D, VN0801D, VN1000D, VN1001D, VN1200D, VN1201D, IRF130, IRF131, IRF132, IRF133, IRF530, IRF531, IRF532, IRF533

SAFE OPERATING AREA

