

Life, Power-Age, Environmental and Military Testing Capabilities — USA MIL-S-19500 Qualified

Life Tests and Power-Age Capabilities

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| <p>A. High temperature storage life testing up to 200°C.</p> <p>B. Voltage temperature stress tests at both ambient and elevated conditions.</p> <p>C. Free air operation life. Test capability, 1000 positions for power transistors, and 1500 positions for power diodes.</p> | <p>D. HTRB test capabilities over 25,000 positions for V_{GS} and for V_{DS} burn-in for HEXFETs, and more than 2000 positions for diodes, SCRs and Schottkys.</p> <p>E. Computerized readout equipment.</p> <p>F. Intermittent operating life tests at various cycles and power levels.</p> |
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Environmental Test Capabilities

TEST	CAPABILITY
Acceleration, Sustained Centrifuge	50-30,000g (Standard)
Altitude (Barometric Pressure, Reduced)	450,000 Ft. Simulated Altitude at $T_A = 25^\circ\text{C}$
Moisture Resistance	25-85°C 85% RH
Salt Atmosphere/Spray	25°C to 71°C, up to 20% Salt Solution by Weight
Seal-Gross, Fine Leak	1×10^{-8} atm cc/sec, Fluorocarbons, Mineral Oils, FC-43, Hydrostatic Pressure: 0-100 psig
Symbolization (Resistance to Solvents)	Permanent Marking
Shock (Mechanical)	Pulse Shape — Approximately Half-sine 500-1500g at 0.5-1.0 msec
Solderability	Up to 260°C
Temperature Cycling	- 65°C to 200°C
Terminal Strength (Lead Integrity)	Lead Fatigue, Tension, Stud Torque, Terminal Torque
Thermal Shock	- 65°C to 200°C
Vibration, Fatigue	5-20g Fixed Frequency
Vibration, Variable	5-2000 Hz as Limited by 1 inch DA and 60 inches/second Velocity; 0-20g (Standard)

Military Test Standard Capabilities

TEST CATEGORY	MIL-STD-202	MIL-STD-750
Barometric Pressure (reduced)	Method 105, All Conditions	Method 1001, All Conditions
Moisture Resistance	Method 106	Method 1021
Resistance to Solvents	Method 215	Method 1022
Salt Atmosphere	Method 101, All Conditions	Method 1041, Method 1046
Seal, Gross Leak	Method 112B, Conditions A, B & D	Method 1071, Conditions C, D & F
Seal, Fine Leak	Only Method 112B, Condition C Procedure IIIA	Method 1071, Condition H
Solderability	Method 208	Method 2026
Soldering Heat	Method 210, All Conditions	Method 2031
Temperature Cycling	Method 102, All Conditions	Method 1051, All Conditions
Terminal Strength	Method 211, All Conditions	Method 2036, All Conditions
Terminal Shock (Glass Strain)	Method 107, All Conditions	Method 1058, All Conditions
Acceleration, Sustained (Centrifuge)	Method 212, All Conditions	Method 2006
Shock (Mechanical)	Method 213, Conditions D, E & F	Method 2016
Vibration, Fatigue	Method 201	Method 2046
Vibration, Variable Frequency	Method 204	Method 2056
PIND	—	Method 2052
Power Cycling	—	Method 1042

Life, Power-Age, Environmental and Military Testing Capabilities — Europe

Life Test and Power-Age Capabilities

- A. High temperature storage life testing up to 200°C.
- B. Voltage temperature stress tests at both ambient and elevated conditions.
- C. HTRB test capabilities over 5000 positions for V_{GS} and for V_{DS} burn-in for HEXFETs.
- D. Computerized measurement and readout equipment.
- E. Intermittent operating life tests at various cycles and power levels.

Environmental Test Capabilities

TEST	
Acceleration, Sustained Centrifuge	50 to 30,000g (Standard)
Altitude (Barometric Pressure Reduced)	450,000 Ft. Simulated Altitude at $T_A = 25^\circ\text{C}$
Moisture Resistance	25°C to 85°C, 85% Relative Humidity
Seal-Gross, Fine Leak	1×10^{-8} atm cc/sec, Fluorocarbons, Mineral Oils, FC-43, Hydrostatic Pressure: 0 to 100 psig
Symbolisation (Resistance to Solvents)	Permanent Marking
Solderability	Up to 250°C
Temperature Cycling	-65°C to 200°C
Terminal Strength (Lead Integrity)	Lead Fatigue, Tension, Stud Torque, Terminal Torque
Thermal Shock	-85°C to 200°C

Military Test Standard Capabilities

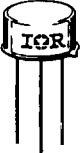
TEST CATEGORY	MIL-STD-750 / ESA/SCC	CECC 50,000
Barometric Pressure (reduced)	Method 1001	—
Moisture Resistance	Method 1021	4.4.2
Resistance to Solvents	Method 1022	4.2.3
Seal, Gross Leak	Method 1071, Conditions C, D & F	4.4.10 Qc
Seal, Fine Leak	Method 1071, Condition H	4.4.10 Qc
Solderability	Method 2026	4.4.7
Soldering Heat	Method 2031	4.4.8
Temperature Cycling	Method 1051, All Conditions	4.4.4 Na
Terminal Strength	Method 2036, All Conditions	4.4.9, All Conditions
Terminal Shock (Glass Strain)	Method 1056, All Conditions	4.4.9, All Conditions
Acceleration, Sustained (Centrifuge)	Method 2006	4.4.11
PIND	Method 2052	—
Power Cycling	Method 1042	—

Government/ Space Products

Products From IR

HEXFET, Mil-Qualified

TO39/HEXFET/N-Channel

Part Numbers			Hexfet Cross Reference	Voltage	Current $T_c = 25^\circ\text{C}$ (A)	MIL-S-19500	Qualification	Case Style
JEDEC	JANTX	JANTXV						
2N6782	JANTX2N6782	JANTXV2N6782	IRFF110	100V	3.5	/556	19500-1262-83	TO-205AF TO-39 
2N6784	JANTX2N6784	JANTXV2N6784	IRFF210	200V	2.25	/556	19500-1262-83	
2N6786	JANTX2N6786	JANTXV2N6786	IRFF310	400V	1.25	/556	19500-1262-83	
2N6788	JANTX2N6788	JANTXV2N6788	IRFF120	100V	6.0	/555	19500-1263-83	
2N6790	JANTX2N6790	JANTXV2N6790	IRFF220	200V	3.5	/555	19500-1263-83	
2N6792	JANTX2N6792	JANTXV2N6792	IRFF320	400V	2.0	/555	19500-1263-83	
2N6794	JANTX2N6794	JANTXV2N6794	IRFF420	500V	1.5	/555	19500-1263-83	
2N6796	JANTX2N6796	JANTXV2N6796	IRFF130	100V	8.0	/557	19500-1263-83	
2N6798	JANTX2N6798	JANTXV2N6798	IRFF230	200V	5.5	/557	19500-1261-83	
2N6800	JANTX2N6800	JANTXV2N6800	IRFF330	400V	3.0	/557	19500-1261-83	
2N6802	JANTX2N6802	JANTXV2N6802	IRFF430	500V	2.5	/557	19500-1261-83	

TO39/HEXFET/P-Channel

2N6845	JANTX2N6845	JANTXV2N6845	IRFF9120	-100V	-4.0	/563	19500-1094-86
2N6847	JANTX2N6847	JANTXV2N6847	IRFF9220	-200V	-2.5	/563	19500-1094-86
2N6849	JANTX2N6849	JANTXV2N6849	IRFF9130	-100V	-6.5	/564	19500-1093-86
2N6851	JANTX2N6851	JANTXV2N6851	IRFF9230	-200V	-4.0	/564	19500-1093-86

TO3/HEXFET/N-Channel

2N6756	JANTX2N6756	JANTXV2N6756	IRF130	100V	14.0	/542	19500-488-81
2N6758	JANTX2N6758	JANTXV2N6758	IRF230	200V	9.0	/542	19500-488-81
2N6760	JANTX2N6760	JANTXV2N6760	IRF330	400V	5.5	/542	19500-488-81
2N6762	JANTX2N6762	JANTXV2N6762	IRF430	500V	4.5	/542	19500-489-81
2N6764	JANTX2N6764	JANTXV2N6764	IRF150	100V	38.0	/543	19500-490-81
2N6766	JANTX2N6766	JANTXV2N6766	IRF250	200V	30.0	/543	19500-490-81
2N6768	JANTX2N6768	JANTXV2N6768	IRF350	400V	14.0	/543	19500-960-82
2N6770	JANTX2N6770	JANTXV2N6770	IRF450	500V	12.0	/543	19500-960-82

TO3/HEXFET/P-Channel

2N6804	JANTX2N6804	JANTXV2N6804	IRF9130	-100V	-12.0	/562	19500-811-86
2N6806	JANTX2N6806	JANTXV2N6806	IRF9230	-200V	-6.5	/562	19500-811-86

TO254/HEXFET/N-Channel

2N7218	JANTX2N7218	JANTXV2N7218	IRFM140	100V	28.0	/596	19500-703-91
2N7219	JANTX2N7219	JANTXV2N7219	IRFM240	200V	18.0	/596	19500-703-91
2N7221	JANTX2N7221	JANTXV2N7221	IRFM340	400V	10.0	/596	19500-703-91
2N7222	JANTX2N7222	JANTXV2N7222	IRFM440	500V	8.0	/596	19500-703-91
2N7224	JANTX2N7224	JANTXV2N7224	IRFM150	100V	34.0	/592	19500-703-91
2N7225	JANTX2N7225	JANTXV2N7225	IRFM250	200V	27.4	/592	19500-703-91
2N7227	JANTX2N7227	JANTXV2N7227	IRFM350	400V	14.0	/592	19500-703-91
2N7228	JANTX2N7228	JANTXV2N7228	IRFM450	500V	12.0	/592	19500-705-91



TO254/HEXFET/P-Channel

2N7236	JANTX2N7236	JANTXV2N7236	IRFM9140	-100V	-18.0	/595	19500-503-91
2N7237	JANTX2N7237	JANTXV2N7237	IRFM9240	-200V	-11.0	/595	19500-503-91

- (1) PACKAGES CONTAINING BERYLLIA SHALL NOT BE GROUND, SANDBLASTED, MACHINED, OR HAVE OTHER OPERATIONS PERFORMED ON THEM WHICH WILL PRODUCE BERYLLIA OR BERYLLIUM DUST. FURTHERMORE, BERYLLIUM OXIDE PACKAGES SHALL NOT BE PLACED IN ACIDS THAT WILL PRODUCE FUMES CONTAINING BERYLLIUM.

Schottky Diodes — MIL-Qualified

D04 & D05/Schottky


Part Numbers				Voltage (V)	Industrial Current Rating (A)	Military Current Rating (A)	MIL-S-19500	Qualification	Case Style
JEDEC	JAN	JANTX	JANTXV						
1N6391	JAN1N6391	JANTX1N6391	JANTXV1N6391	45	25	25	/553	19500-647-83	D04 
1N6392	JAN1N6392	JANTX1N6392	JANTXV1N6392	45	60	60	/554	19500-648-83	D05 

Government/ Space Products

Products From IR

HEXFET, CECC Qualified — Europe


TO3/HEXFET/N-Channel

Basic Type	VDS (V)	RDS(on) (Ohms)	CECC Specification	Issue No.	Issue Date	Level of Quality Assessment and CECC 50 000 Screen Level Options	Case Outline
IRF044	60	0.028	50 012-056	1	6/91	E-,EA,EB,EC,ED	TO-204AA TO-3 
IRF120	100	0.30	50 012-012	2	6/83	E-,EA,EB,EC,ED	
IRF130	100	0.18	50 012-013	2	6/83	E-,EA,EB,EC,ED	
IRF140	100	0.077	50 012-056	1	6/91	E-,EA,EB,EC,ED	
IRF150	100	0.055	50 012-014	2	6/83	E-,EA,EB,EC,ED	
IRF220	200	0.80	50 012-102	2	6/83	E-,EA,EB,EC,ED	
IRF230	200	0.40	50 012-013	2	6/83	E-,EA,EB,EC,ED	
IRF240	200	0.18	50 012-056	1	6/91	E-,EA,EB,EC,ED	
IRF250	200	0.085	50 012-014	2	6/83	E-,EA,EB,EC,ED	
IRF330	400	1.00	50 012-013	2	6/83	E-,EA,EB,EC,ED	
IRF340	400	0.40	50 012-013	1	6/91	E-,EA,EB,EC,ED	
IRF350	400	0.30	50 012-014	2	6/83	E-,EA,EB,EC,ED	
IRF430	500	1.50	50 012-012	2	6/83	E-,EA,EB,EC,ED	
IRF440	500	0.85	50 012-056	1	6/91	E-,EA,EB,EC,ED	
IRF450	500	0.40	50 012-014	2	6/83	E-,EA,EB,EC,ED	

TO3/HEXFET/P-Channel

IRF9130	-100	0.30	50 012-015	2	6/83	E-,EA,EB,EC,ED
IRF9140	-100	0.20	50 012-057	1	6/83	E-,EA,EB,EC,ED
IRF9230	-200	0.80	50 012-015	1	1/91	E-,EA,EB,EC,ED
IRF9240	-200	0.50	50 012-057	1	6/83	E-,EA,EB,EC,ED

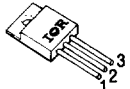
TO39/HEXFET/N-Channel

2N6782	100	0.60	50 012-027	1	3/85	E-,EA,EB,EC,ED	TO-205AF TO-39 
2N6788	100	0.30	50 012-028				
2N6796	100	0.18	50 012-029				
2N6790	200	0.80	50 012-028				
2N6798	200	0.40	50 012-029				
2N6800	400	1.00	50 012-029				

TO39/HEXFET/P-Channel

2N6845	-100	0.60	50 012-036	1	6/91	E-,EA,EB,EC,ED
2N6849	-100	0.30	50 012-037			
2N6847	-200	1.50	50 012-036			
2N6851	-200	0.80	50 012-037			

TO257/HEXFET/N-Channel

IRFY044(M)	60	0.03	50 012-062	1	10/91	E-,EA,EB,EC,ED	TO-257AA Y-PAK 
IRFY120(M)	100	0.31	50 012-060				
IRFY130(M)	100	0.19	50 012-061				
IRFY140(M)	100	0.092	50 012-062				
IRFY240(M)	200	0.19	50 012-062				
IRFY340(M)	400	0.55	50 012-062				
IRFY430(M)	500	1.50	50 012-061				
IRFY440(M)	500	0.85	50 012-062				


TO257/HEXFET/P-Channel

IRFY9120(M)	-100	0.60	50 012-063	1	10/91	E-,EA,EB,EC,ED
IRFY9130(M)	-100	0.31	50 012-064			
IRFY9140(M)	-100	0.21	50 012-065			
IRFY9240(M)	-200	0.50	50 012-065			


	1	2	3
IRFY	G	D	S
IRFY(M)	D	S	G

HEXFET, ESA/SCC — Qualified — Europe

TO3/HEXFET/N-Channel

Basic Type	V _{DS} (V)	R _{DS(on)} (Ohms)	ESA/SCC Specification	Variant	Test Level	Issue No.	Issue Date	Outline	
2N6764	100	0.055	5205/013	-01	B,C	2A	3/85	TO-204AA (TO-3) 	
2N6766	200	0.085	5205/013	-02	B,C				
2N6768	400	0.30	5205/013	-03	B,C				
TO3/HEXFET/P-Channel									
2N6804	-100	0.30	5206/004	-01	B,C	1A	12/85		
2N6806	-200	0.80	5206/004	-02	B,C	1A			


TO39/HEXFET/N-Channel

2N6796	100	0.18	5205/019	-01	B,C	1A	12/85	TO-205AF (TO-39) 	
2N6782	100	0.60	5205/014	-01	B,C	1A	3/84		
2N6798	200	0.40	5205/019	-03	B,C	1A	12/85		
IRFF210	200	1.50	5205/014	-	-	-	Pending		
2N6800	400	1.00	5205/019	-05	B,C	1A	12/85		
IRFF310	400	3.60	5205/014	-	-	-	Pending		
2N6802	500	1.50	5205/019	-07	B,C	1A	12/85		
TO39/HEXFET/P-Channel									
2N6849	-100	0.30	5206/003	-01	B,C	1	12/85		
2N6851	-200	0.80	5206/003	-02	B,C	1			


TO ORDER SPECIFY BASIC TYPE, SPECIFICATION, VARIANT, LOT A
E.G. 2N6764, SCC5205/013.018, ISSUE N:2 DATED 3/88.

HEXFET, DEF STAN — 59/61 Part 80 — Tested — Europe

TO220/HEXFET/N-Channel

Basic Type	V _{DS} (V)	R _{DS(on)} (Ohms)	IR Document	Option	Outline
IRFZ14	60	0.20	-	F,FX	TO-220AB 
IRFZ24		0.10	-		
IRFZ34		0.05	-		
IRFZ44		0.028	-		
IRF510	100	0.54	E2957		
IRF520		0.27	E2958		
IRF530		0.16	E2959		
IRF540		0.077	E2960		
IRF610	200	1.50	E2957		
IRF620		0.80	E2958		
IRF630		0.40	E2959		
IRF640		0.18	E2960		
IRF614	250	2.00	-		
IRF624		1.10	-		
IRF634		0.45	-		
IRF644		0.28	-		
IRF710	400	3.60	E2957		
IRF720		1.80	E2958		
IRF730		1.00	E2959		
IRF740		0.55	E2960		
IRF820	500	3.00	E2958		
IRF830		1.50	E2959		
IRF840		0.85	E2960		

TO220/HEXFET/P-Channel


IRF9Z14	-60	0.50	-	F,FX	TO-220AB 
IRF9Z24		0.28	-		
IRF9Z34		0.14	-		
IRF9510	-100	1.20	-		
IRF9520		0.60	E2961		
IRF9530		0.30	E2962		
IRF9540		0.20	-		
IRF9610	-200	3.00	-		
IRF9620		1.50	E2961		
IRF9630		0.80	E2962		
IRF9640		0.50	-		

Government/ Space Products



Products From IR

HEXFET High Reliability



TO39/HEXFET Logic Level/N-Channel

Part Number	V _{DS} Drain Source Voltage (Volts)	R _{DS(on)} On-State Resistance (Ohms)	I _D Continuous Drain Current 25°C Case (Amps)	I _{DM} Pulse Drain Current (Amps)	P _D Max Power Dissipation (Watts)	Case Style
IRLF110	100	0.60	3.5	14	15	TO-205AF TO-39 
IRLF120		0.35	5.3	21	20	
IRLF130		0.20	8	33	25	

LCC/SMD/HEXFET/N-Channel

IRFE024	60	0.15	7.4	30	14	LCC 
IRFE110	100	0.60	3.1	12	11	
IRFE120	100	0.30	4.8	19	14	
IRFE130	100	0.18	7.4	30	22	
IRFE210	200	1.50	1.8	7.2	11	
IRFE220	200	0.80	2.8	11	14	
IRFE230	200	0.40	4.8	19	22	
IRFE310	400	3.60	1.2	4.8	11	
IRFE320	400	1.80	1.8	7.2	14	
IRFE330	400	1.00	3.0	12	22	
IRFE420	500	3.00	1.4	5.6	14	
IRFE430	500	1.50	2.5	10	22	
IRFN044	60	0.40	34	136	75	SMD-1 
IRFN054	60	0.027	45	180	100	
IRFN140	100	0.10	22	88	75	
IRFN150	100	0.073	27	108	100	
IRFN240	200	0.18	14	56	75	
IRFN250	200	0.10	22	88	100	
IRFN340	400	0.55	8	32	75	
IRFN350	400	0.315	11	44	100	
IRFN440	500	0.89	6	24	75	
IRFN450	500	0.42	10.4	41	100	
IRFNG40	1000	3.50	3	12	75	
IRFNG50	1000	2.00	4.5	18	100	

LCC/SMD/HEXFET/P-Channel


IRFE9024	-60	0.28	-5.4	-22	14	LCC 
IRFE9110	-100	1.20	-2.2	-8.8	11	
IRFE9120	-100	0.60	-3.5	-14	14	
IRFE9130	-100	0.30	-6.5	-25	22	
IRFE9210	-200	3.00	-1.3	-5.2	11	
IRFE9220	-200	1.50	-2.1	-8.4	14	
IRFE9230	-200	0.80	-3.6	-14	22	
IRFN9140	-100	0.20	-17	-68	75	SMD-1 
IRFN9240	-200	0.51	-8	-32	75	

Products From IR


Government/ Space Products

HEXFET High Reliability

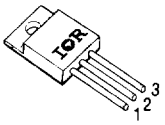
TO66/HEXFET/N-Channel Not For Future Designs

Part Number	V _{DS} Drain Source Voltage (Volts)	R _{DS(on)} On-State Resistance (Ohms)	I _D Continuous Drain Current 25°C Case (Amps)	I _{DM} Pulse Drain Current (Amps)	P _D Max Power Dissipation (Watts)	Case Style
IRFJ120 IRFJ130 IRFJ140	100	0.3 0.18 0.085	8 12 15	32 40 60	40 50 70	TO-213AA TO-66 
IRFJ220 IRFJ230 IRFJ240	200	0.8 0.4 0.18	5 8 13	20 32 52	40 50 70	
IRFJ320 IRFJ330 IRFJ340	400	1.8 1.0 0.55	3 4.5 7.5	12 18 30	40 50 70	
IRFJ420 IRFJ430 IRFJ440	500	3.0 1.5 0.85	2.5 3.8 6	10 15 24	40 50 70	

TO66/HEXFET/P-Channel Not For Future Designs

IRFJ9130 IRFJ9140 IRFJ9230 IRFJ9240	-100 -100 -200 -200	0.31 0.21 0.81 0.51	-8.5 -18.0 -5.5 -8.0	-34 -72 -22 -32	50 70 50 70	TO-213AA TO-66 
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TO257/HEXFET/N-Channel

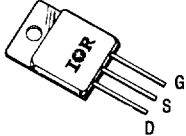
IRFY120(M) IRFY130(M) IRFY140(M) IRFY240(M) IRFY340(M) IRFY430(M) IRFY440(M)	100 100 100 200 400 500 500	0.31 0.19 0.092 0.19 0.55 1.50 0.85	7.4 10.8 18.4 12.4 6.9 3.5 5.5	29.2 43.2 73.6 49.6 27.6 14 22	30 45 60 60 60 45 60	TO-257 Y-PAK  <table border="1" style="display: inline-table;"> <tr> <td></td> <td>1</td> <td>2</td> <td>3</td> </tr> <tr> <td>IRFY</td> <td>G</td> <td>D</td> <td>S</td> </tr> <tr> <td>IRFY(M)</td> <td>D</td> <td>S</td> <td>G</td> </tr> </table>		1	2	3	IRFY	G	D	S	IRFY(M)	D	S	G
	1	2	3															
IRFY	G	D	S															
IRFY(M)	D	S	G															
IRFY9120(M) IRFY9130(M)	-100	0.60 0.31	-5.3 -9.3	-21.2 -37.2	30 45													

Government/ Space Products

Products From IR

HEXFET High Reliability

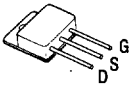
TO254/HEXFET/N-Channel

Part Number	V _{DS} Drain Source Voltage (Volts)	R _{DS(on)} On-State Resistance (Ohms)	I _D Continuous Drain Current 25°C Case (Amps)	I _{DM} Pulse Drain Current (Amps)	P _D Max Power Dissipation (Watts)	Case Style
IRFM044	60	0.04	25	210	150	TO-254AA M-PAK (1) 
IRFM054	60	0.022	25	150	150	
IRFM140	100	0.100	25	110	150	
IRFM150	100	0.065	25	160	150	
IRFM240	200	0.200	18	72	125	
IRFM250	200	0.100	25	100	150	
IRFM340	400	0.56	8.5	40	125	
IRFM350	400	0.31	15	60	150	
IRFM440	500	0.86	8	32	125	
IRFM450	500	0.42	13	52	150	

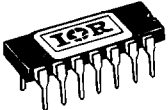
TO254/HEXFET/P-Channel

IRFM9130	-100	0.31	-11.5	-48	75	
IRFM9140	-100	0.21	-17.3	-69	125	
IRFM9230	-200	0.81	-6.5	-26	75	
IRFM9240	-200	0.51	-10.7	-43	125	

TO-258/HEXFET/N-Channel



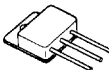

IRFV360	400	0.21	22	80	250	TO-258 
IRFV460	500	0.27	21	70		

MO036/HEXFET/N-Channel

IRFG110	100	0.8	0.95	4	1.4	MO-036AB 
MO036/HEXFET/P-Channel						
IRFG9110	-100	1.4	-0.75	-3	1.4	
MO036/HEXFET/N & P Channel						
IRFG5110	100	0.8	1	4	1.4	
	-100	0.8	-0.95	-4		
IRFG6110	100	0.8	0.95	4		
	-100	1.4	-0.95	-3.5		

(1) PACKAGES CONTAINING BERYLLIA SHALL NOT BE GROUND, SANDBLASTED, MACHINED, OR HAVE OTHER OPERATIONS PERFORMED ON THEM WHICH WILL PRODUCE BERYLLIA OR BERYLLIUM DUST. FURTHERMORE, BERYLLIUM OXIDE PACKAGES SHALL NOT BE PLACED IN ACIDS THAT WILL PRODUCE FUMES CONTAINING BERYLLIUM.

Schottky Diodes — High Reliability







Part Number	V _{RRM} (V)	I _{F(AV)} @ T _C = 100°C Per Package	V _{FM/leg} @ T _C = 125°C		I _{FSM} Single Pulse 10 ms Sine	I _{RM} @ T _J = 125°C & Rated V _{RWM} (mA)	Max. T _J (°C)	Case Style
			(V)	@ I _{FM}				
5EQ100 8EQ045	100 45	25 32	1.31 1.38	50 64	180 180	15 15	150 150	LCC 
22GQ100 25GQ045 22CGQ045 15CGQ100 12CGQ150	100 45 45 100 150	35* 35* 35* 35* 35*	1.38 1.30 0.91 0.96	70 70 35 35	300 300 300 300 300	45 45 20 45 20	150 150 150 150 150	TO-254AA M-PAK (1) 
45CKQ100 60CKQ045	100 45	45* 45*	0.96 0.83	45 45	540 540	45 45	150 150	TO-258 (1) 
15CLQ100 20CLQ045	100 45	40 80	1.01 1.16	40 80	180 180	45 20	150 150	SMD-1 

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Government/ Space Products

Products From IR

Radiation Hard HEXFETs

Part Number	Radiation Test Level (Si)	V _{DS} Drain Source Voltage (Volts)	R _{DS(on)} On-State Resistance (Ohms)	I _D Continuous Drain Current 25°C Case (Amps)	I _{DM} Pulse Drain Current (Amps)	P _D Max Power Dissipation (Watts)	Case Style	
IRHN7054	100	60	0.027	45	180	100	SMD-1  WT. 2.4g	
IRHN7150	100	100	0.065	27	108	100		
IRHN7250	100	200	0.11	22	88	100		
IRHN7450	100	500	0.45	10.4	41	100		
IRHN8054	1000	60	0.027	45	180	100		
IRHN8150	1000	100	0.065	27	108	100		
IRHN8250	1000	200	0.11	22	88	100		
IRHN8450	1000	500	0.45	10.4	41	100		
IRHE7110	100	100	0.6	3.5	14	15		LCC  WT. 0.42g
IRHE7130	100	100	0.18	8	32	25		
IRHE7230	100	200	0.44	5	20	25		
IRHE8110	1000	100	0.6	3.5	14	15		
IRHE8130	1000	100	0.18	8	32	25		
IRHE8230	1000	200	0.44	5	20	25		
IRHG7110	100	100	0.80	0.95	4	1.4	MO-036AB  WT. 1.3g	
IRHF7110	100	100	0.6	3.5	14	15	TO-205AF TO-39  WT. 0.98g	
IRHF7130	100	100	0.18	8	32	25		
IRHF7230	100	200	0.44	5	20	25		
IRHF8110	1000	100	0.6	3.5	14	15		
IRHF8130	1000	100	0.18	8	32	25		
IRHF8230	1000	200	0.44	5	20	25		
IRHM7130	100	100	0.18	14	56	75	TO-254AA (1)  WT. 9.3g	
IRHM7230	100	200	0.40	9.0	36	75		
IRHM7054	100	60	0.027	35	220	150		
IRHM7150	100	100	0.065	34	136	150		
IRHM7250	100	200	0.100	27.4	110	150		
IRHM7450	100	500	0.42	12	48	150		
IRHM7360	100	400	0.20	25	100	300		
IRHM8130	1000	100	0.18	14	56	75		
IRHM8230	1000	200	0.40	9.0	36	75		
IRHM8054	1000	60	0.027	35	220	150		
IRHM8150	1000	100	0.065	34	136	150		
IRHM8250	1000	200	0.100	27.4	110	150		
IRHM8450	1000	500	0.42	12	48	150		
IRHM8360	1000	400	0.20	25	100	300		
IRH7130	100	100	0.18	14	56	75		TO-204AA/AE TO-3  WT. 11.5g
IRH7230	100	200	0.40	9.0	36	75		
IRH7054	100	60	0.027	35	220	150		
IRH7150	100	100	0.065	34	136	150		
IRH7250	100	200	0.100	27.4	110	150		
IRH7450	100	500	0.42	12	48	150		
IRH7360	100	400	0.20	25	100	300		
IRH8130	1000	100	0.18	14	56	75		
IRH8230	1000	200	0.40	9.0	36	75		
IRH8054	1000	60	0.027	35	220	150		
IRH8150	1000	100	0.065	34	136	150		
IRH8250	1000	200	0.100	27.4	110	150		
IRH8450	1000	500	0.42	12	48	150		

- DEMONSTRATES EXCELLENT THRESHOLD VOLTAGE STABILITY AND BREAKDOWN VOLTAGE STABILITY AT TOTAL RADIATION DOSES AS HIGH AS 1 MEGARAD.
- CAPABLE OF SURVIVING TRANSIENT IONIZATION PULSES AS HIGH AS 1×10^{12} RADS (SI)/SEC.
- VIRTUALLY IMMUNE TO SEU.

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