

Automotive Product Selection Guide



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International
IR Rectifier
THE POWER MANAGEMENT LEADER

Intelligent Power Switch

Topology	R _{DS(on)} mOhm	V clamp V	OverCurrent Protection		Package				
			Typ value (A)	Type	TO220	D ² Pak	DPak	SOIC	SOT-223
Single Low Side	13	39	85	Shutdown	AUIPS1011	AUIPS1011S	AUIPS1011R		
	25	36	35	Shutdown	AUIPS1021	AUIPS1021S	AUIPS1021R		
	50	36	18	Shutdown	AUIPS1031	AUIPS1031S	AUIPS1031R		
	100	39	6	Shutdown			AUIPS1041R		AUIPS1041L
	200	39	3	Shutdown					AUIPS1051L
	60	68	14	Shutdown			AUIPS2031R		
	130	68	5	Shutdown			AUIPS2041R		AUIPS2041L
Dual Low Side	300	70	1.8	Shutdown					AUIPS2051L
	2*100	39	6	Shutdown				AUIPS1042G	
	2*200	39	3	Shutdown				AUIPS1052G	
	2*300	70	1.8	Shutdown				AUIPS2052G	
Topology	R _{DS(on)} mOhm	V clamp V	OverCurrent Protection		Package				
			Typ value (A)	Type	TO220	D ² Pak	DPak	SOIC	SOT-223
Single High Side	14	39	55	Limit	AUIPS6011	AUIPS6011S	AUIPS6011R		
	30	39	32	Limit	AUIPS6021	AUIPS6021S	AUIPS6021R		
	55	39	16	Limit	AUIPS6031	AUIPS6031S	AUIPS6031R		
	130	39	6.5	Limit	AUIPS6041	AUIPS6041S	AUIPS6041R	AUIPS6041G	
	70	70	7	Limit	AUIPS7081	AUIPS7081S	AUIPS7081R		
	120	70	5	Limit	AUIPS7091	AUIPS7091S		AUIPS7091G	
Dual High Side	2*100	65	25	Shutdown				AUIPS7142G	
Quad High Side	4*130	39	6.5	Limit				AUIPS6044G	
I sense High Side	7	40	10 to 90	Shutdown	AUIR3313	AUIR3313S			
	12	40	6 to 60	Shutdown	AUIR3314	AUIR3314S			
	20	40	3 to 30	Shutdown	AUIR3315	AUIR3315S			
	7	40	10 to 90	Shutdown	AUIR3316	AUIR3316S			
	7	40	120	Shutdown	AUIR3317	AUIR3317S			
	30	65	60	Shutdown			AUIPS7121R		
	30	65	60	Shutdown			AUIPS7125R		
	100	65	25	Shutdown			AUIPS7145R		
	100	65	7	Shutdown				AUIPS71411G	
PWM High Side	7.5	65	45	Shutdown		AUIPS7111S			
	3.5	40	10 to 40	Shutdown		AUIR33401S			
	3.5	40	10 to 40	Shutdown		AUIR3330S			
100Khz High Side	3.5	40	10 to 40	Shutdown		AUIR3340S			
	40	70	30	Shutdown			AUIPS7221R		
	40	70	30	Shutdown			AUIPS72211R		

DirectFET® 2

V _(BRIDSS) (V)	R _{DS(on)} Max. @ 10V _{GS} (mOhm)	I _D Max @ TC = 25°C (A)	Q _G Typ. @ 10V _{GS} (nC)	Pad Outline	Optimized Feature	Package		
						Small Can	Medium Can	Large Can
40	1.0	270	220	L8	Low R _{DS(on)}			AUIRF7739L2
40	1.6	210	147	L6	Low R _{DS(on)}			AUIRF7738L2
40	1.9	156	89	L6	Low R _{DS(on)}			AUIRF7737L2
40	2.9 ¹	143	59 ¹	M4	Low R _{DS(on)}		AUIRL7736M2	
40	6.4 ¹	65	24 ¹	SC	Low R _{DS(on)}	AUIRL7732S2		
60	7.0	86	36	M4	Low Q _G		AUIRF7648M2	
60	34.6	32	7	SB	Low Q _G	AUIRF7640S2		
100	4.6	118	112	L8	Low Q _G			AUIRF7669L2
100	31.7	40	16	SC	Low Q _G	AUIRF7647S2		
100	62.0	14	8	SB	Low Q _G	AUIRF7665S2		
150	56.0	28	25	M2	Low Q _G		AUIRF7675M2	

¹ Values at VGS = 4.5V

IGBT

Part Number	B _V (V)	Diode Config	Package	SCSOA min	ICE @ 100°C	V _{CE(sat)} max @ 25°C (V)	Frequency Range	Typical Application
AUIRG4BC30S-S	600	Discrete	D ² PAK	na	18	1.6	< 1 kHz	PTC heater, discharge switch and other relay replacements
AUIRG4BC30U-S	600	Discrete	D ² PAK	na	12	2.1	4-30 kHz	SMPS, PFC
AUIRG4BH40S-S	1200	Discrete	D ² PAK	0	26	1.47	< 1 kHz	PTC heater, discharge switch and other relay replacements
AUIRG4PH50S	1200	Discrete	TO-247	10	33	1.7	< 1 kHz	PTC heater, discharge switch and other relay replacements
AUIRGP35B60PD(E)	600	Co-Pack	TO-247	10	35	1.85	20-50 kHz	SMPS, PFC
AUIRGP50B60PD1(E)	600	Co-Pack	TO-247	10	50	2.35	20-50 kHz	SMPS, PFC
AUIRGS30B60K	600	Discrete	D ² PAK	10	50	2.35	4-16 kHz	SMPS, PFC
AUIRGR4045D	600	Co-Pack	DPak	5	6	2	4-30 kHz	HID
AUIRGS4056D	600	Co-Pack	D ² PAK	5	12	1.85	4-30 kHz	Injection, motor drive
AUIRG(B,P,SL)4062D(E)	600	Co-Pack	TO220, TO247, D ² PAK	5	24	1.95	4-30 kHz	HV AC motor drive
AUIRGP4063D(E)	600	Co-Pack	TO247	5	48	2.14	4-30 kHz	HV AC motor drive
AUIRGP4066D(1)(E)	600	Co-Pack	TO247	5	75	1.7	4-30 kHz	High power inverter
AUIRGPS4067D1	600	Co-Pack	Super247	10	160	2.05	4-30 kHz	High power inverter
AUIRG7CH73K10B	1200	Discrete	die sale	10	75	2.3	4-16 kHz	High power inverter
AUIRG7CH73K6B	1200	Discrete	die sale	6	75	2.2	4-16 kHz	High power inverter
AUIRG7CH80K6B-M	1200	Discrete	die sale (SFM)	6	200	2.45	4-30 kHz	High power inverter

All IGBT parts have die sale options

Coming in 2011

HVICs

Part	Application	Voltage	Package	Output Source / Sink Current	Vcc Range	Vbs Range	Typ. Prop Delay	Features
AUIRS2334S	3-phase Inverter Drivers	600V	SOIC20	+290 / -600mA	10-20V w/ UVLO	10-20V w/ UVLO	530/530ns On/Off	Under voltage lockout, 3.3V logic input, independent half-bridge drivers, shoot through protection, tolerant to negative transient voltage, matched propagation delays, fixed deadtime, separate low and high side inputs in-phase with output
AUIRS2336S	3-phase Inverter Drivers	600V	SOIC28	+200 / -350mA	10-20V w/ UVLO	10-20V w/ UVLO	530/530ns On/Off	Under voltage lockout, over current and temperature shutdown, 3.3V logic input, cross conduction prevention logic, tolerant to negative transient voltage, adjustable fault clear timing, separate logic and power grounds, advanced input filter
AUIRS20302S	3-phase Inverter Drivers with PFC/Brake Driver	200V	SOIC28	+200 / -350mA	6-20V w/ UVLO	6-20V w/ UVLO	700/700ns On/Off	Full three phase gate driver, Under-voltage lockout for all channels, Cross-conduction prevention logic, Charge pump for pre-regulator N-ch Mosfet, Power-on reset, FAULT mode operation, Current sense comparator, 3.3V logic compatible, Matched propagation delay for all channels, Fully operational up to +200V, Floating channels for bootstrap operation, Tolerant to negative transients (-dV/dt immune), Lower di/dt gate drive for better noise immunity
AUIRS2332J	3-phase Inverter Drivers	600V	PLCC44	+200 / -420mA	10-20V w/ UVLO	10-20V w/ UVLO	500/500ns On/Off	Under voltage lockout, 3.3V logic input, independent half-bridge drivers, tolerant to negative transient voltage, matched propagation delays, over current shutdown turn off all 6 switches, output out of phase with input, integrated op-amp
AUIRS2004S	Dual Channel High- and Low- Side Drivers	200V	SOIC8	+130 / -270mA	10-20V w/ UVLO	10-20V w/ UVLO	680/150ns On/Off	Under voltage lockout, 3.3V, 5V, and 15V input logic compatible, matched propagation delay, cross conduction prevention
AUIRS2110S	Dual Channel High- and Low- Side Drivers	500V	SOIC16	+2.5A / -2.5A	10-20V w/ UVLO	10-20V w/ UVLO	140/120ns On/Off	Under voltage lockout, 3.3V input logic compatible, separate logic supply from 3.3V to 20V, CMOS Schmitt-triggered inputs with pull-down, matched propagation delay, separate logic and power ground, 10ns delay matching
AUIRS2112S	Dual Channel High- and Low- Side Drivers	600V	SOIC16	+290 / -600mA	10-20V w/ UVLO	10-20V w/ UVLO	140/140ns On/Off	Under voltage lockout, 3.3V input logic compatible, separate logic supply from 3.3V to 20V, CMOS Schmitt-triggered inputs with pull-down, matched propagation delay, separate logic and power ground, 30ns delay matching
AUIRS2113S	Dual Channel High- and Low- Side Drivers	600V	SOIC16	+2.5A / -2.5A	10-20V w/ UVLO	10-20V w/ UVLO	140/120ns On/Off	Under voltage lockout, 3.3V input logic compatible, separate logic supply from 3.3V to 20V, CMOS Schmitt-triggered inputs with pull-down, matched propagation delay, separate logic and power ground, 20ns delay matching
AUIRS2181S	Dual Channel High- and Low- Side Drivers	600V	SOIC8	+1.9A / -2.3A	10-20V w/ UVLO	10-20V w/ UVLO	160/200ns On/Off	Under voltage lockout, 3.3V, 5V input logic compatible, matched propagation delay
AUIRS21811S	Dual Channel High- and Low- Side Drivers	600V	SOIC8	+1.9A / -2.3A	10-20V w/ UVLO	10-20V w/ UVLO	135/135ns On/Off	Under voltage lockout, 3.3V, 5V input logic compatible, CMOS Schmitt-triggered inputs, matched propagation delay, lower di/dt gate driver for better noise immunity
AUIRS21814S	Dual Channel High- and Low- Side Drivers	600V	SOIC14	+1.9A / -2.3A	10-20V w/ UVLO	10-20V w/ UVLO	160/200ns On/Off	Under voltage lockout, 3.3V, 5V input logic compatible, matched propagation delay, separate logic and power ground
AUIRS2191S	Dual Channel High- and Low- Side Drivers	600V	SOIC16	+3.5A / -3.5A	10-20V w/ UVLO	10-20V w/ UVLO	90/90ns On/Off	Under voltage lockout for both channels, 3.3V, 5V and 15V input logic compatible, matched propagation delay, CMOS Schmitt-triggered inputs with pull-down
AUIRS2301S	Dual Channel High- and Low- Side Drivers	600V	SOIC8	+120 / -250mA	5-20V w/ UVLO	5-20V w/ UVLO	220/200ns On/Off	Under voltage lockout for both channels, 3.3V, 5V and 15V input logic compatible, matched propagation delay
AUIRS2011S	Dual Channel High- and Low- Side Drivers	200V	SOIC8	+1.0 / -1.0A	10-20V w/ UVLO	10-20V w/ UVLO	60/60ns On/Off	Under voltage lockout for both channels, 3.3V and 5V input logic compatible, Tolerant to negative transient (-dV/dt), CMOS Schmitt-triggered inputs with pull-down
AUIRS4426S	Dual Channel Low-Side Drivers	Low side	SOIC8	+2.3A / -3.3A	6-20V w/ UVLO	6-20V w/ UVLO	70/65ns On/Off	3.3V, 5V input logic compatible, matched propagation delay
AUIRS4427S	Dual Channel Low-Side Drivers	Low side	SOIC8	+2.3A / -3.3A	6-20V w/ UVLO	6-20V w/ UVLO	50/50ns On/Off	3.3V, 5V input logic compatible, matched propagation delay
AUIRS4428S	Dual Channel Low-Side Drivers	Low side	SOIC8	+2.3A / -3.3A	6-20V w/ UVLO	6-20V w/ UVLO	70/65ns On/Off	3.3V, 5V input logic compatible, matched propagation delay
AUIRS2092S	Single Channel Class-D Audio Amplifier	200V	SOIC16	+1.0 / -1.2A	10-18V w/ UVLO	10-18V w/ UVLO	360/335ns On/Off	Analog input, Programmable bidirectional over-current protection with self-reset, Under voltage protection, Programmable preset deadtime, reduced THD+N
AUIRS20956S	Single Channel Class-D Audio Amplifier	200V	SOIC16	+1.0 / -1.2A	10-18V w/ UVLO	10-18V w/ UVLO	80/65ns On/Off	Floating PWM input (non-inverting and 3.3V and 5V logic compatible), Programmable bi-directional over-current protection with self-reset, Under voltage protection, Programmable preset deadtime, improved sound quality with optimized THD+N, 200V rating delivers up to 500W output power
AUIRS20161S	Single Channel High-Side Drivers	150V	SOIC8	+250 / -250mA	4.4-20V w/ UVLO	4.4-20V w/ UVLO	150/150ns On/Off	One high side output and internal low side Vs recharge, CMOS Schmitt trigger inverted input with pull up resistor, CMOS Schmitt trigger inverted reset with pull down resistor, 5V compatible input logic, Under voltage lockout, immune to negative Vs spike and transient
AUIRS2117S	Single Channel High-Side Drivers	600V	SOIC8	+290 / -600mA	10-20V w/ UVLO	10-20V w/ UVLO	140/140ns On/Off	Under voltage lockout, Schmitt-triggered inputs with pull-down, output in phase with input
AUIRS2118S	Single Channel High-Side Drivers	600V	SOIC8	+290 / -600mA	10-20V w/ UVLO	10-20V w/ UVLO	140/140ns On/Off	Under voltage lockout, inverting Schmitt-triggered inputs with pull-down, output in phase with input
AUIRS2123S	Single Channel High-Side Drivers	600V	SOIC8	+500 / -500mA	10-20V w/ UVLO	10-20V w/ UVLO	140/140ns On/Off	CMOS Schmitt-triggered inputs with pull-down, output in phase with input
AUIRS2124S	Single Channel High-Side Drivers	600V	SOIC8	+500 / -500mA	10-20V w/ UVLO	10-20V w/ UVLO	140/140ns On/Off	CMOS Schmitt-triggered inputs with pull-down, output out phase with input
AUIRS2127S	Single Channel High-Side Drivers	600V	SOIC8	+290 / -600mA	12-20V w/ UVLO	9-20V w/ UVLO	150/150ns On/Off	Under voltage lockout, 3.3V, 5V and 15V input logic compatible, Fault output, output in phase with input

HVICs continued











Part	Application	Voltage	Package	Output Source / Sink Current	Vcc Range	Vbs Range	Typ. Prop Delay	Features
AUIRS21271S	Single Channel High-Side Drivers	600V	SOIC8	+290 / -600mA	9-20V w/ UVLO	9-20V w/ UVLO	150/150ns On/Off	Under voltage lockout, 3.3V, 5V and 15V input logic compatible, Fault output, output in phase with input
AUIRS2128S	Single Channel High-Side Drivers	600V	SOIC8	+290 / -600mA	10-20V w/ UVLO	12-20V w/ UVLO	150/150ns On/Off	Under voltage lockout, 3.3V, 5V and 15V input logic compatible, Fault output, output out of phase with input
AUIRS21281	Single Channel High-Side Drivers	600V	SOIC8	+290 / -600mA	9-20V w/ UVLO	9-20V w/ UVLO	150/150ns On/Off	Under voltage lockout, 3.3V, 5V and 15V input logic compatible, Fault output, output out of phase with input
AUIR2085S	Single phase Half-bridge Drivers	100V	SOIC8	+1.0 / -1.0A	10-15V w/ UVLO	10-15V w/ UVLO		Under voltage lockout, soft start, integrated 50% duty cycle oscillator, programmable switching frequency and dead time, adjustable deadtime, adjustable over current protection
AUIRS2003S	Single phase Half-bridge Drivers	200V	SOIC8	+290 / -600mA	10-20V w/ UVLO	10-20V w/ UVLO	680/150ns On/Off	Under voltage lockout, 3.3V, 5V, and 15V input logic compatible, matched propagation delay, shoot-through protection
AUIRS2184S	Single phase Half-bridge Drivers	600V	SOIC8	+1.9A / -2.3A	10-20V w/ UVLO	10-20V w/ UVLO	600/230ns On/Off	Under voltage lockout, 3.3V and 5V input logic compatible, matched propagation delay on both channels
AUIRS21844S	Single phase Half-bridge Drivers	600V	SOIC14	+1.9A / -2.3A	10-20V w/ UVLO	10-20V w/ UVLO	600/230ns On/Off	Under voltage lockout, 3.3V and 5V input logic compatible, matched propagation delay on both channels, all high voltage pins on one side of package, separate logic and power ground
AUIRS2302S	Single phase Half-bridge Drivers	600V	SOIC8	+120 / -250mA	5-20V w/ UVLO	5-20V w/ UVLO	720/250ns On/Off	Under voltage lockout for both channels, 3.3V, 5V and 15V input logic compatible, matched propagation delay
AUIR0815S	Buffer Gate Driver	30V	SOIC8	+10 / -10A	10-20V w/ UVLO		50/50ns On/Off	High peak output current 10A, Low propagation delay time, Negative turn off bias can be apply to -VE using an external supply, Soft over-current shutdown output pin, Low supply current, Matched delay outputs, Undervoltage lockout, Over temperature protection, Continuous 'on' capability

Coming in 2011

N Channel MOSFETs

V _(BRIDSS) (V)	R _{DS(on)} @10V _{GS} max (mΩ)	R _{DS(on)} @4.5V _{GS} max (mΩ)	I _D @ T _C =25°C (A)	Q _g Typ @ 10V _{GS} (nC)	Q _g Typ @ 4.5V _{GS} (nC)	Package												
						SOT-223	SO-8	DPak	D ² Pak	D ² Pak-7	IPak	TO-220	TO-262	Full Pak	TO-247			
20	20.0	28.0	36		7			AUIRLR3714										
24	1.0		429	180						AUIRF1324S-7P								
24	1.7		340	160						AUIRF1324S								
24	1.5		353	160								AUIRF1324S						
30	2.4		260	160						AUIRF2903ZS								
30	7.0	10.0	116		60					AUIRL2203NS								
30	45.0	65.0	22		15					AUIRLR2703								
40	1.3		400	160							AUIRFS3004-7P							
40	1.4	1.7	380		120						AUIRLS3034-7P							
40	1.6		320	170							AUIRF2804S-7P							
40	1.7		350	220														AUIRFP4004
40	1.7	2.0	343		108						AUIRLS3034				AUIRLB3034			
40	1.8		340	160							AUIRFS3004				AUIRFB3004			
40	2.0		270	160							AUIRF2804S				AUIRF2804	AUIRF2804L		
40	3.1	5.9	180		75*						AUIRL1404ZS				AUIRL1404Z	AUIRL1404ZL		
40	3.4		180	100							AUIRF1404ZS				AUIRF1404Z	AUIRF1404ZL		
40	4.0		162	160							AUIRF1404S				AUIRF1404			
40	4.0		160	93							AUIRL1404S							
40	4.9	6.5			40						AUIRLR3114Z							
40	5.5		120	68							AUIRF4104S							
40	5.5		119	59							AUIRFR4104				AUIRFU4104			
40	5.5		120	68											AUIRF4104			
40	9.0		77	30							AUIRFR3504Z							
40	9.2		87	48							AUIRFR3504							
55	2.6		240	130											AUIRF3805S-7P			
55	3.3		210	190											AUIRF3805S			
55	4.7		175	150												AUIRF2805		
55	4.7		135	150												AUIRF2805S		
55	4.9		150	120												AUIRF1405ZS		AUIRF1405ZL
55	5.0		174	170												AUIRFBA1405P**		
55	5.3		160	120														AUIRFP1405
55	5.3		133	170												AUIRF1405		
55	6.5		110	76												AUIRF3205ZS		
55	7.5		94	63												AUIRF1010ZS		AUIRF1010ZL
55	8.0		140	100												AUIRF3305		
55	8.0		56	113														AUIRFI3205
55	8.0		98	97												AUIRF3205		
55	8.0		98	113														AUIRFP064N
55	8.0	12.0	89		44*											AUIRLR3705Z		
55	8.0	12.0	86		40*											AUIRL3705ZS		AUIRL3705ZL
55	8.0	13.0	58		130*													AUIRLI2505
55	10.0	18.0	89		98*											AUIRL3705NS		

N Channel MOSFETs, continued

V _{BRIDSS} (V)	R _{DS(on)} @10V _{GS} max (mΩ)	R _{DS(on)} @4.5V _{GS} max (mΩ)	I _D @ T _C = 25°C (A)	Q _g Typ @ 10V _{GS} (nC)	Q _g Typ @ 4.5V _{GS} (nC)	Package											
						 SOT-223	 SO-8	 DPak	 D²Pak	 D²Pak-7	 IPak	 TO-220	 TO-262	 Full Pak	 TO-247		
55	11.0		62	40				AUIRFR48Z									
55	11.0		61	43					AUIRFZ48ZS			AUIRFZ48Z					
55	13.5	22.5	60		23*			AUIRLR2905Z									
55	13.5	22.5	51		24*							AUIRLZ44Z					
55	13.9		51	29					AUIRFZ44ZS			AUIRFZ44Z					
55	14.0		64	54								AUIRFZ48N					
55	14.0	17.0	61	61				AUIRLR3915									
55	14.5		59	29				AUIRFR2905Z									
55	16.5		53	48									AUIRFZ46NL				
55	17.5		41	42								AUIRFZ44N					
55	24.0		28	43												AUIRFIZ44N	
55	24.5		30	18				AUIRFR4105Z									
55	27.0	40.0	36		48*			AUIRLR2905									
55	37.0	43.0	25		20*			AUIRLR3105									
55	40.0	65.0	5	32			AUIRLL2705										
55	40.0		19	23												AUIRFIZ34N	
55	40.0		26	23								AUIRFZ34N					
55	45.0		25	23				AUIRFR4105									
55	58.0	100.0	16		7*			AUIRLR024Z			AUIRLU024Z						
55	60.0	100.0	5		7*		AUIRLL024Z										
55	65.0	100.0	4		10*		AUIRLL024N										
55	65.0	110.0	17		15*			AUIRLR024N									
55	70.0		17	13								AUIRFZ24NS					
55	75.0		16	13				AUIRFR024N									
55	75.0		3	12			AUIRFL024N										
55	140.0	210.0	10		7.9*			AUIRLR014N									
55	140.0	280.0	3	10			AUIRLL014N										
55	160.0		2	7			AUIRFL014N										
60	1.9	2.2	300		110						AUIRLS3036-7P						
60	2.1		293	200							AUIRFS3006-7P						
60	2.4	2.8	270		91				AUIRLS3036			AUIRLB3036					
60	2.5		270	200					AUIRFS3006			AUIRFB3006					
60	3.0		210	120								AUIRFB3206	AUIRFSL3206				
60	3.0		200	120					AUIRFS3206								AUIRFP3206
60	4.2		160	85					AUIRFS3306			AUIRFB3306					AUIRFP3306
60	6.8	8.3	99		33			AUIRLR3636									
60	8.4		79	46				AUIRFR1018E	AUIRF1018ES			AUIRF1018E					
60	8.5		84	58					AUIRF1010EVS			AUIRF1010EZ					
60	9.4		12	26				AUIRF7855Q									
60	12.0		57	43					AUIRFZ44VZS								
60	15.8		43	22				AUIRFR3806	AUIRFS3806			AUIRFB3806					
60	16.5		55	45								AUIRFZ44V					
60	26.0	30.0	7	10				AUIRF7478Q									
75	1.8		350	380													AUIRFP4368
75	2.6		260	160						AUIRFS3107-7P							
75	3.0		230	160					AUIRFS3107								
75	3.3		210	160								AUIRFB3077					
75	3.3		200	160													AUIRFP3077
75	3.8		160	170						AUIRF2907ZS-7P							
75	4.1		170	120					AUIRFS3207Z			AUIRFB3207Z					
75	4.5		180	180								AUIRFB3207					
75	4.5		177	410													AUIRFP2907
75	4.5		170	180								AUIRF2907Z					AUIRFP2907Z
75	5.8		120	79					AUIRFS3307Z			AUIRFB3307Z					
75	7.0		140	150								AUIRF3808					
75	7.0		105	150					AUIRF3808S								
75	9.0		80	56				AUIRFR3607	AUIRFS3607			AUIRFB3607					
75	12.6		80	89								AUIRF3007					
75	13.0		82	107								AUIRF2807					
75	16.0		53	50				AUIRFR2307Z									
75	22.0		45	34				AUIRFR2607Z									
75	26.0		42	74				AUIRFR2407									
80	28.0	30.0	39		22			AUIRLR2908									
100	2.6		290	360													AUIRFP4468
100	3.9	4.1	190		93						AUIRLS4030-7P						
100	4.0		190	150							AUIRFS4010-7P						
100	4.3	4.5	180		87				AUIRLS4030			AUIRLB4030					
100	4.5		180	150								AUIRFB4110					AUIRFP4110
100	4.7		180	143					AUIRFS4010								
100	6.0		134	120													AUIRFP4310Z
100	6.0		127	120					AUIRFS4310Z			AUIRFB4310Z					

N Channel MOSFETs, continued

V _{(BR)DSS} (V)	R _{DS(on)} @10V _{GS} max (mΩ)	R _{DS(on)} @4.5V _{GS} max (mΩ)	I _D @ T _C = 25°C (A)	Q _g Typ @ 10V _{GS} (nC)	Q _g Typ @ 4.5V _{GS} (nC)	Package									
						SOT-223	SO-8	DPak	D ² Pak	D ² Pak-7	IPak	TO-220	TO-262	Full Pak	TO-247
100	7.0		140	170					AUIRFS4310				AUIRFSL4310		
100	9.0		97	83					AUIRFS4410Z			AUIRFB4410Z			AUIRFP4410Z
100	10.0		96	120								AUIRFB4410			
100	14.0	16.0	63		34			AUIRLR3110Z			AUIRLU3110Z				
100	14.0		73	90					AUIRFS4610			AUIRFB4610			
100	18.0		59	82					AUIRF3710ZS			AUIRF3710Z			
100	18.0		56	69				AUIRFR3710Z							
100	26.0		55	93					AUIRL2910S						
100	26.5		36	42					AUIRF540ZS			AUIRF540Z			
100	105.0	155.0	15	23	34*			AUIRLR3410							
100	185.0	265.0	11		20*			AUIRLR120N							
100	190.0		9	7				AUIRFR120Z			AUIRFU120Z				
150	5.9		171	151											AUIRFP4568
150	11.0		104	77							AUIRFB4115				
150	11.8		105	73					AUIRFS4115-7P						
150	12.1		99	77					AUIRFS4115						
150	15.0		83	71					AUIRFS4321			AUIRFB4321			
150	42.0		43	133								AUIRF3415			
150	39.0		25	26								AUIRFB4615			
150	42.0		33	26				AUIRFR4615	AUIRFS4615						
200	9.7		130	161											AUIRFP4668
200	20.0		76	100								AUIRFB4127			
200	22.0		72	100					AUIRFS4127						
200	25.0		65	70											AUIRFP4227
200	26.0		65	70								AUIRFB4227			
200	26.0		62	70					AUIRFS4227				AUIRFSL4227		
200	72.5		25	25								AUIRFB4620			
200	78.0		24	25				AUIRFR4620	AUIRFS4620						
250	17.5		93	180											AUIRFP4768
250	33.0		60	99								AUIRFB4332			

* Q_g at 5V_{GS}

** Super TO-220 (TO-273AA)

Coming in 2011

P Channel MOSFETs

V _{(BR)DSS} (V)	R _{DS(on)} @ 10V _{GS} max (mΩ)	R _{DS(on)} @ 4.5V _{GS} max (mΩ)	I _D @ T _C = 25°C (A)	Q _g Typ @ 10V _{GS} (nC)	Q _g Typ @ 4.5V _{GS} (nC)	Package									
						SO-8	DPak	D ² Pak	TO-220	TO-262	Full Pak				
-20	60.0		-5	15		AUIRF7207Q									
-30	20.0	35.0	-10	61		AUIRF7416Q									
-55	20.0		-74	120					AUIRF4905S	AUIRF4905	AUIRF4905L	AUIRFI4905			
-55	65.0		-28	42				AUIRFR5305							
-55	100.0		-17	23							AUIRF9Z34N				
-55	110.0		-18	21				AUIRFR5505							
-55	175.0		-11	13				AUIRFR9024N							
-100	60.0		-38	150						AUIRF5210S					
-100	117.0		-23	65								AUIRF9540N			
-100	205.0		-13	39					AUIRFR5410						
-150	150.0		-27	71							AUIRF6218S				
-150	580.0		-13	44					AUIRFR6215			AUIRF6215			

Dual N Channel MOSFETs

V _{(BR)DSS} (V)	R _{DS(on)} @ 10V _{GS} max (mΩ)	R _{DS(on)} @ 4.5V _{GS} max (mΩ)	I _D @ T _C = 25°C (A)	Q _g Typ @ 10V _{GS} (nC)	Q _g Typ @ 4.5V _{GS} (nC)	Package (SO-8)
30	50.0	80.0	5	17		AUIRF7303Q
50	130.0	200.0	3	10		AUIRF7103Q
55	50.0	65.0	5	29		AUIRF7341Q

Dual P Channel MOSFETs

V _{(BR)DSS} (V)	R _{DS(on)} @ 10V _{GS} max (m)	R _{DS(on)} @ 4.5V _{GS} max (m)	I _D @ T _C = 25°C (A)	Q _g Typ @ 10V _{GS} (nC)	Q _g Typ @ 4.5V _{GS} (nC)	Package (SO-8)
-20		90.0	-4		22	AUIRF7304Q
-30	58	98.0	-5	23		AUIRF7316Q
-55	105.0	170.0	-3	26		AUIRF7342Q

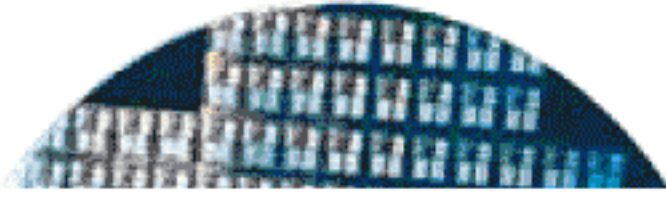
N+P Channel Paired MOSFETs

V _{(BR)DSS} (V)	R _{DS(on)} @ 10V _{GS} max (mΩ)	R _{DS(on)} @ 4.5V _{GS} max (mΩ)	I _D @ T _C = 25°C (A)	Q _g Typ @ 10V _{GS} (nC)	Q _g Typ @ 4.5V _{GS} (nC)	Package (SO-8)
30	45 / 90	75 / 180	5.8 / -4.3	25 / 25		AUIRF7379Q
30	50 / 100	80 / 160	4.7 / -3.5		25 / 25	AUIRF7309Q
30	100 / 250	150 / 400	3.5 / -2.3	6.9 / 6.1		AUIRF9952Q
55	50 / 105	65 / 170	4.7 / -3.4	24 / 26		AUIRF7343Q

Coming in 2011

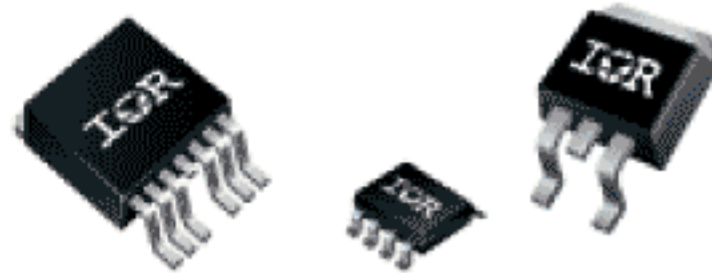
Key Automotive Part Features

Wafer Level Quality Control



- Wafers assigned as automotive grade from very beginning of production
- 100% wafer level probe
- Automated 100% visual inspection to check for defects
- Spatial outlier detection and dynamic part average testing

Enhanced Packaging and Testing



- Bill Of Materials specially optimized for automotive applications to offer improved robustness and durability
- Final test using static part average testing routine
- PbF and Halogen Free*

* Not all package types are Halogen Free at this time

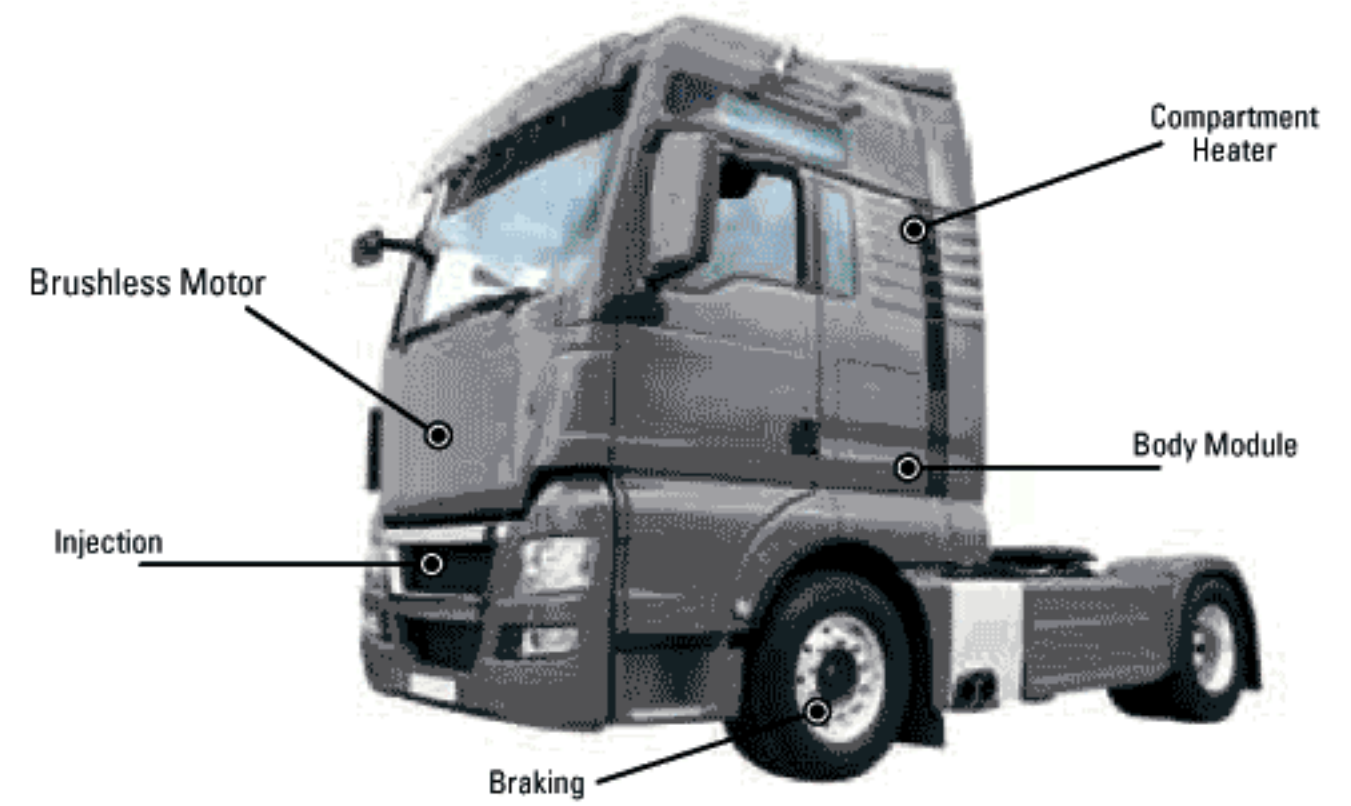
Industry Standard Automotive Services



- PPAP (level3)
- Product change notification
- EOL notification per JSTD 48B
- 15 year record retention
- Dedicated AU datasheet
- AEC-Q10X qualified

Automotive 24V Applications

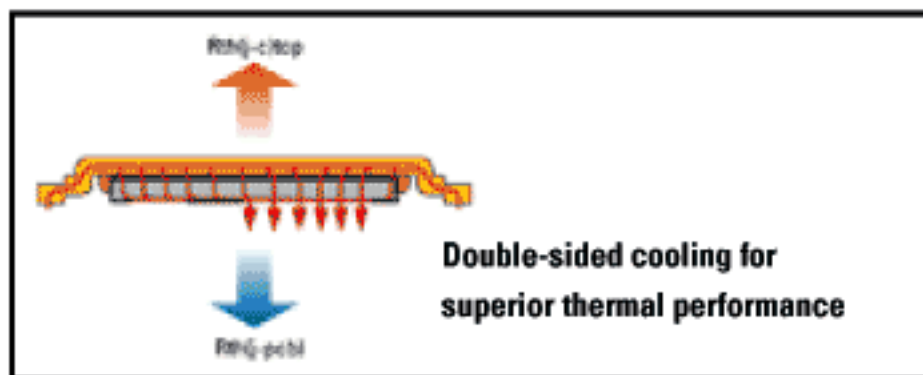
Topology	Body module	Injection	Braking	Compartment heater	Brushless motor
Low side AUIPS20xx	•	•	•		
Current sense High side AUIPS71xx	•				
High side AUIPS70xx			•		
Fast switching high side AUIPS72xx		•		•	
3 phases drive AUIRS20302S MOSFET					•



- Excellent robustness for harsh environment
- In production for more than 10 years
- Dedicated 75V process
- Automotive grade AECQ100
- Zero defect initiative
- Design flexibility for customization

DirectFET®2

IR has undertaken extensive research and development to produce the DirectFET®2 platform, specifically aimed at Automotive applications. The new Automotive DirectFET®2 product platform combines the outstanding performance of the DirectFET packaging technology with IR's latest trench silicon which can be optimized by application for next-generation vehicle platforms for ultra-low on-state resistance ($R_{DS(on)}$), gate charge (Q_g) or logic level operation.

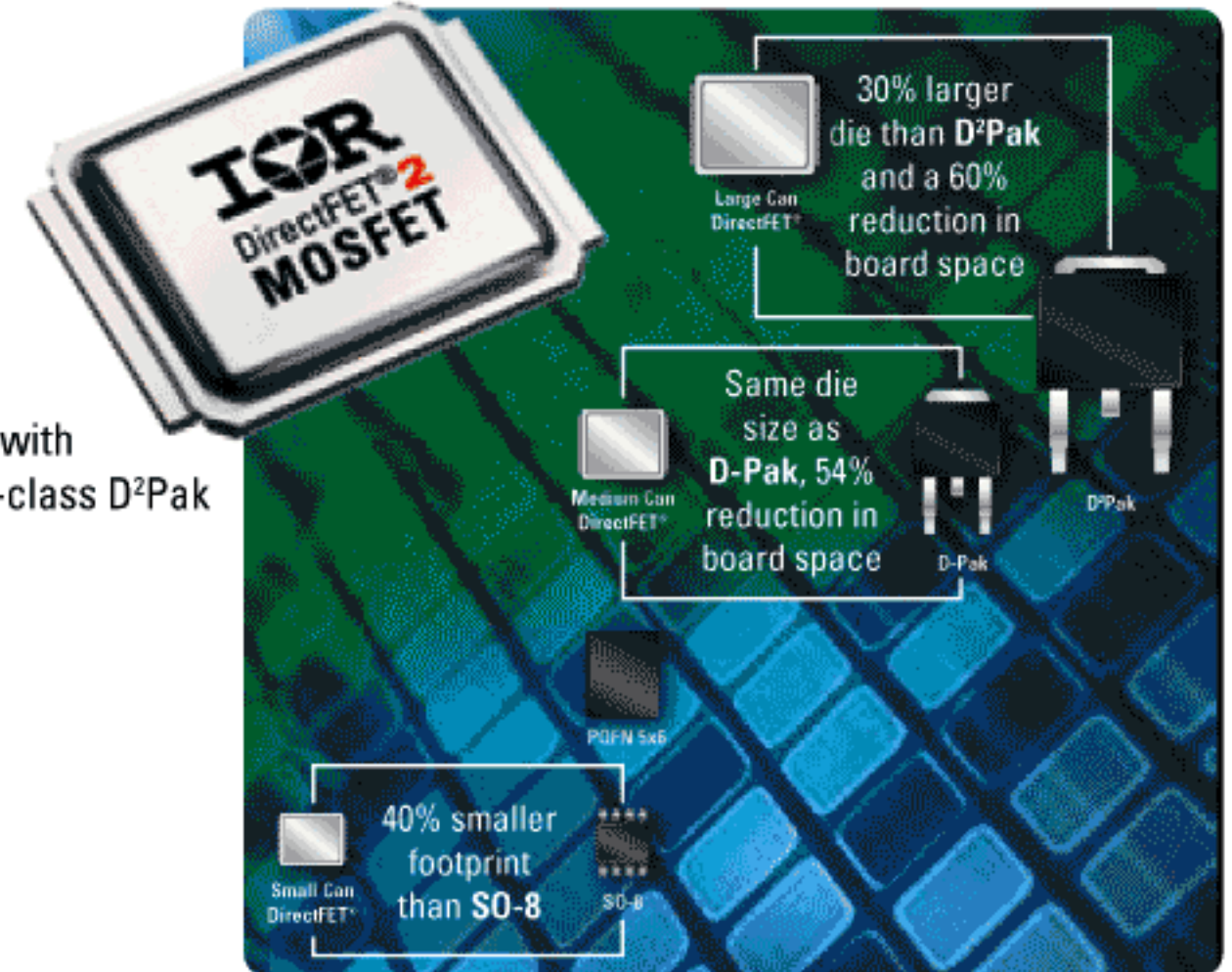


Features:

- Automotive Qualified to AEC Q101
- Exceptional power density
- Low parasitic inductance
- Double-sided cooling
- MSL1 Rated
- New large can: 60% area reduction, with improved $R_{DS(on)}$ compared to best-in-class D²Pak

Applications:

- Injection
- DC-DC
- Motor Drive
- Battery Switch
- Class D Audio
- Steering Systems



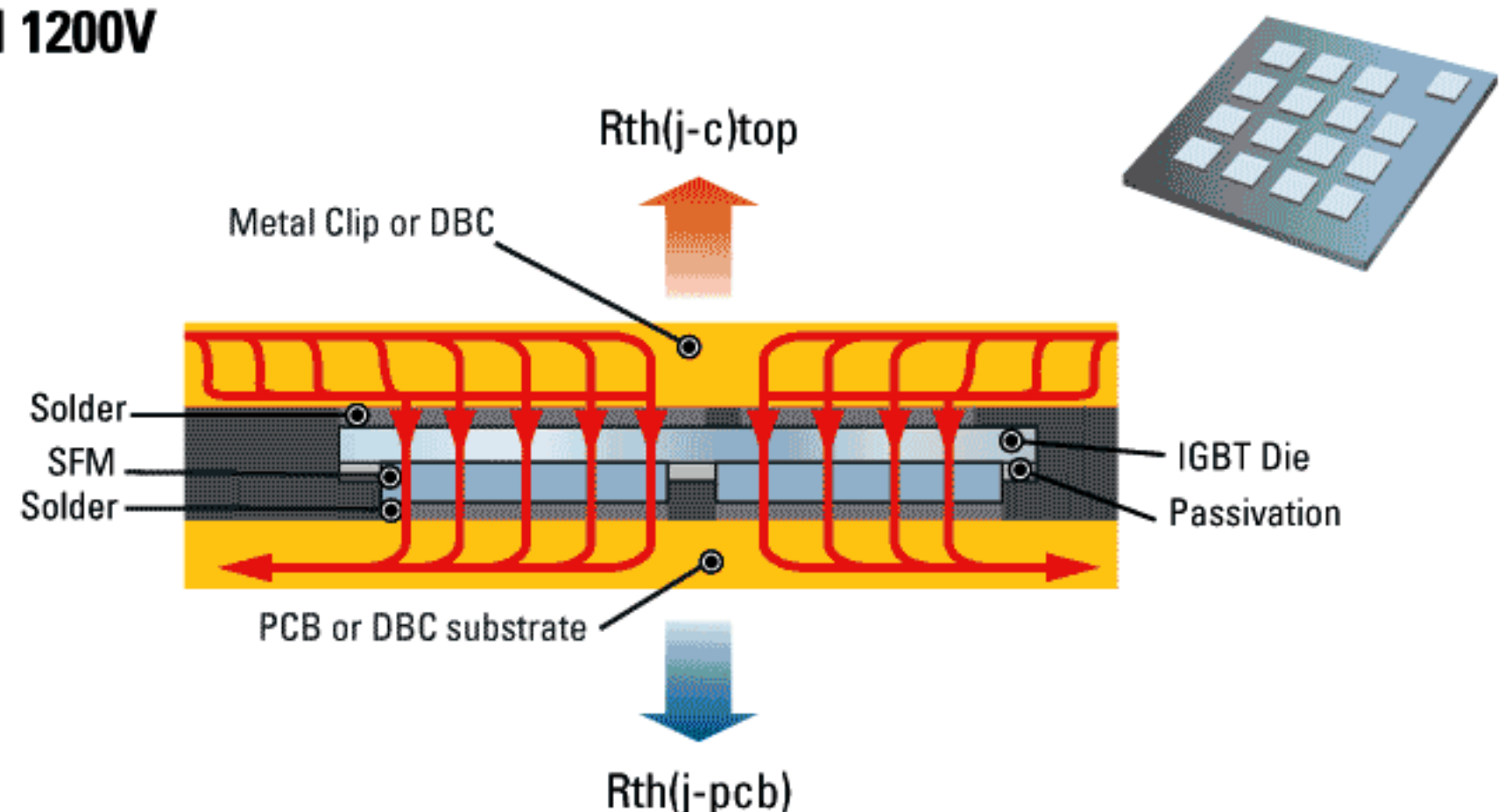
IGBT with Soderable Front Metal: 600V and 1200V

Allows double-sided cooling:

- 50% increase in overall heat exchange area
- 35% reduction in $R_{th(j-c)}$ reduction
- Improved Si current density (approx 25%)

Allows wirebond-less packaging techniques

- Improved manufacturability
- Reduced parasitics for better performance
- Enhanced reliability in high power applications: power cycle endurance proven to be at least 10 times better than wirebond packages



Product Line	Applications	Key Products
 <p>Energy Saving Products Integrated design platforms that enable customers to add energy-conserving features that achieve lower operating energy costs and manufacturing Bill of Material (BOM) costs.</p>	<ul style="list-style-type: none"> • Appliances • Audio • Display • Industrial • Lighting • SMPS 	<ul style="list-style-type: none"> • Digital Control ICs • High-Voltage ICs • IGBTs • IRAM Integrated Power Modules • Intelligent Power Switches • MERs
 <p>Enterprise Power Optimized power management system solutions that deliver benchmark power density, efficiency and performance in enterprise power.</p>	<ul style="list-style-type: none"> • Servers • Storage Networks • Switchers & Routers • Workstations • Notebooks • Game Stations • Set-Top Box 	<ul style="list-style-type: none"> • DirectFET® • Low-Voltage ICs • Sup/REBuck™ • XPhase® • Power Monitor IC • iPOWIR®
 <p>Automotive Automotive grade power management solutions qualified to meet the needs of 12V, 24V and HEV/EV applications with a zero defect goal.</p>	<ul style="list-style-type: none"> • AC and DC Motor Drives • Powertrain / Engine control • Body Electronics • Lighting • Class D Audio • Heavy Loads and Actuators 	<p>Automotive Qualified:</p> <ul style="list-style-type: none"> • HEXFET® Power MOSFETs • Intelligent Power Switches • Driver ICs (Low-, Mid- and High-Voltage) • IGBTs for Motor Drives, Various Loads • DirectFET®2
 <p>Benchmark MOSFETs IR continues to lead the industry by offering power MOSFETs with the lowest $R_{DS(on)}$ and widest range of packages up to 250V for a diverse range of applications.</p>	<ul style="list-style-type: none"> • Audio • Computing • Communications • Motor Control • Power Supply • Synchronous Rectification 	<ul style="list-style-type: none"> • Discrete HEXFET® MOSFETs • Dual HEXFET® MOSFETs • FETKY®
 <p>HiRel Our discrete components, complex hybrid power module assemblies and rugged DC-DC converters utilize leading-edge power technology which, together with demanding environmental specifications help engineers to meet their toughest design challenges.</p>	<ul style="list-style-type: none"> • Space • Military • Commercial Aviation • Rugged Industrial • Medical 	<ul style="list-style-type: none"> • RAD-Hard MOSFETs • Power Modules/Hybrid Solutions • Motor Control Solutions • DC-DC Converters