

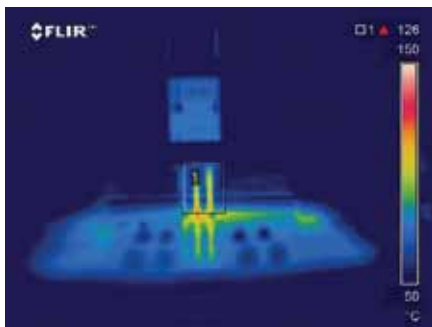
New WideLead Package Carries More Current in Standard TO-262 Footprint

The WideLead Advantage:

- 20% lower $R_{DS(on)}$
- Based on standard TO-262 footprint
- 50% less resistance in source and drain leads
- 240A maximum package current limit

System Level Advantages:

- 30% higher current capability
- Improved efficiency
- Lead temperature reduced by up to 39%
- Greater power density
- Reduced system cost



Standard TO-262 @60A



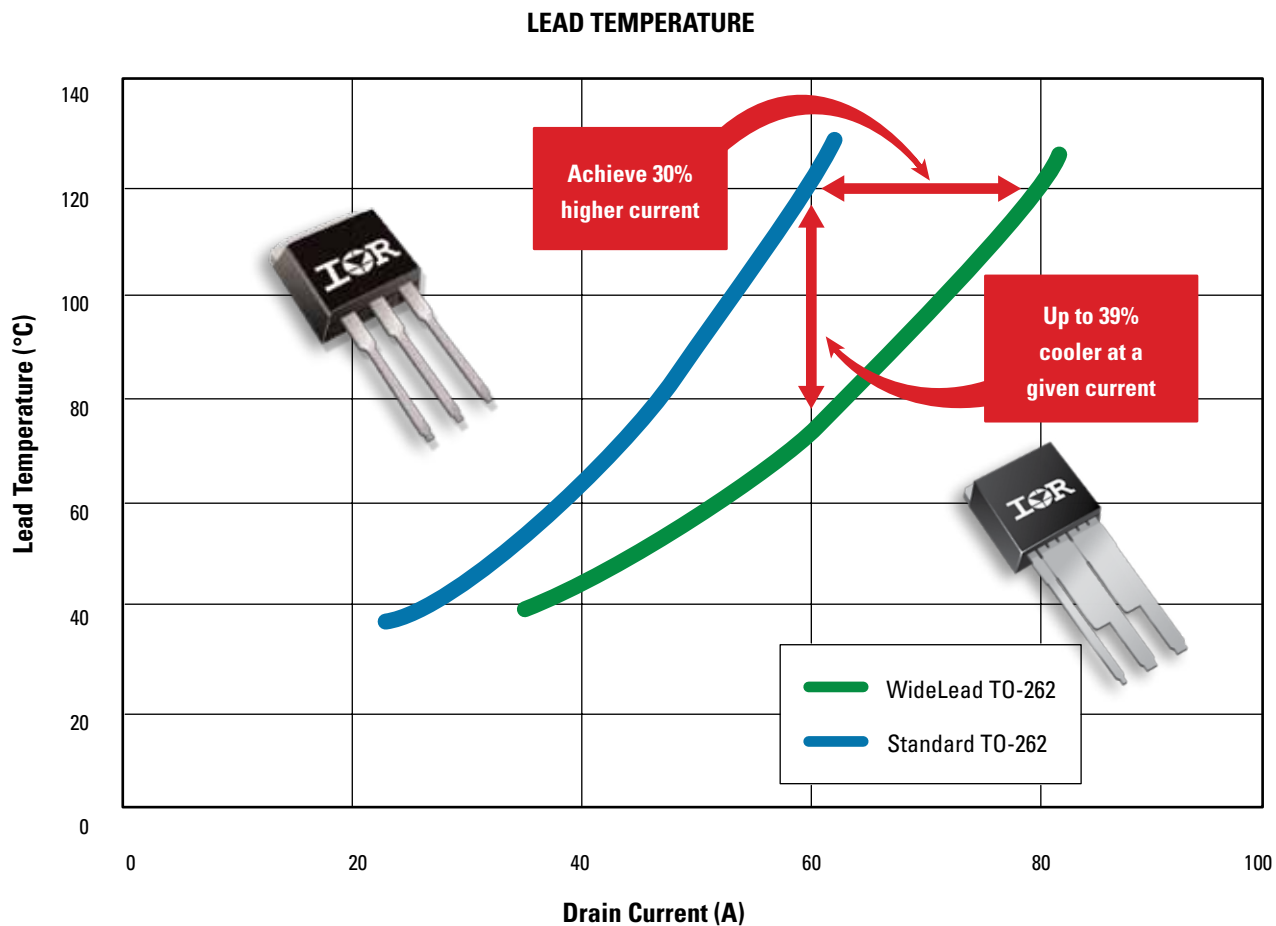
Wide Lead TO-262 @60A

IR offers automotive qualified MOSFETs housed in a novel WideLead TO-262 package that reduces lead resistance by 50 percent compared to traditional TO-262 packages while offering 30 percent higher current. Designed for generic heavy load/ high power through-hole applications requiring low on-state resistance ($R_{DS(on)}$), Electric Power Steering and battery switches used in internal combustion engine (ICE) cars, micro and full hybrid vehicles, the new automotive MOSFETs combine IR's advanced silicon and state-of-the-art packaging technologies to offer significant performance improvements while being compatible with existing design standards.

In standard TO-262 through-hole packages, source and drain leads can add up to 1mOhm of resistance in addition to the $R_{DS(on)}$ of the MOSFET. The new WideLead TO-262 through-hole package reduces lead resistance to less than half a milliohm, greatly reducing conduction losses and heating in the leads to deliver 30 percent more current carrying capability than a traditional TO-262 package for a given operating temperature. Under evaluation, the lead temperature of the WideLead was 30 percent cooler than the standard TO-262 at DC currents of 40A and 39 percent cooler at 60A. Furthermore, other packaging enhancements allow the WideLead to deliver 20 percent lower $R_{ds(on)}$ compared with the same MOSFET in a standard TO-262 package.

IR's automotive MOSFETs are subject to dynamic and static part average testing combined with 100 percent automated wafer level visual inspection as part of IR's automotive quality initiative targeting zero defects. The devices are qualified according to AEC-Q101 standards, feature an environmentally friendly, lead-free and RoHS compliant bill of materials, and are part of IR's automotive quality initiative targeting zero defects.

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Part number	V_{DSS} (V)	$R_{DS(on)}$ Max. (m Ω)	I_D Max. (A)	Packages
1324 Family				
AUIRF1324L	24 V	1.65 m Ω	195 A	Standard TO-262
AUIRF1324WL	24 V	1.3 m Ω	240 A	WideLead TO-262
3004 Family				
AUIRFL3004	40 V	1.75 m Ω	195 A	Standard TO-262
AUIRF3004WL	40 V	1.4 m Ω	240 A	WideLead TO-262