

# 60/100/150 V Automotive-Grade N-Channel MOSFET

AEC-Q101 Qualified with Maximum Junction Temperature of 175°C



PANJIT's latest N-channel automotive-grade power MOSFETs are designed with advanced trench technology to deliver outstanding figure-of-merit(FOM), lower  $R_{DS(ON)}$  and capacitance. This new design effectively minimizes conduction and switching losses, thus enhancing overall electrical performance. These MOSFETs are available in DFN2020BW-6L, DFN3333-8L, DFN5060-8L, DFN5060B-8L, TO-252AA, TO-220AB-L, and TOLL packages, which are low profile packages that save spaces. The series are AEC-Q101 qualified, making them ideal solutions for highly efficient and reliable automotive applications.

## ➤ Features

- Excellent Figure-of-Merit (gate charge x  $R_{DS(ON)}$ )
- Operating junction temperature of 175°C
- 60/100/150 V N-channel advanced trench
- AEC-Q101 qualified and PPAP capable
- Low on-resistance ( $R_{DS(ON)}$ )
- 100% UIS tested

## ➤ Applications

### Automotive



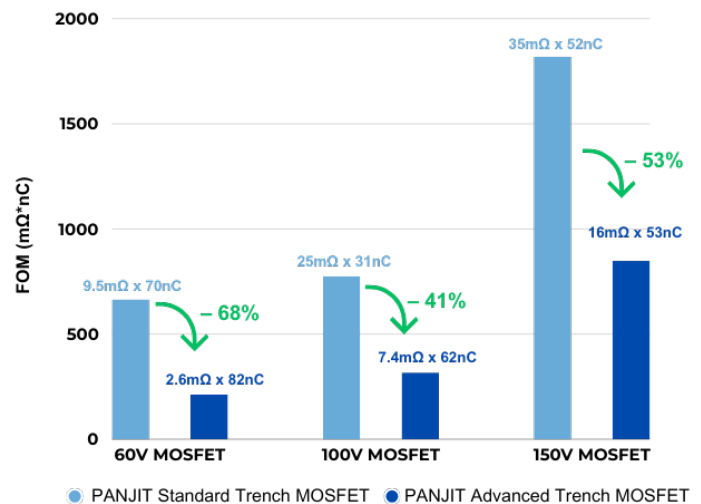
- Wireless Charging Transmitter
- Battery Management System
- Front & Rear Lighting
- DC/DC Converter
- Infotainment

### Power System










- Power Over Ethernet
- 96V Power System
- Power Supply Unit
- Solar Inverter
- Adaptor

### FOM - Standard vs. Advanced Trench



# ▶ Products

V <sub>DS</sub>	V <sub>GS</sub> (th) Typ.	DFN2020BW-6L	DFN3333-8L	DFN5060-8L	DFN5060B-8L	TO-252AA	TO-220AB-L	TOLL
								
V	V	Part Number (R <sub>DS(ON)</sub> @10 V, Typ. [mΩ])						
60	2	PJQ2568AW-AU (13)	PJQ4568AP-AU (11.1)	PJQ5568A-AU (10.6)	PJQ5968A-AU (11.2)	PJD45N06SA-AU (10.6)	**	**
		PJQ2566AW-AU (12.8)	PJQ4566AP-AU (11)	PJQ5566A-AU (10.5)	PJQ5966A-AU (11)	**	**	**
		-	PJQ4564AP-AU (6.7)	PJQ5564A-AU (6.3)	-	PJD60N06SA-AU (6.3)	PJP75N06SA-AU (6.3)	**
		-	-	PJQ5562A-AU (4.7)	-	PJD80N06SA-AU (4.7)	PJP100N06SA-AU (4.7)	**
		-	-	PJQ5560A-AU (2.1)	-	PJD100N06SA-AU (2.6)	PJP125N06SA-AU (2.6)	**
		-	-	PJQ5558AC-AU (0.9)	-	-	**	PJN350N06SA-AU* (0.8)
		-	-	-	-	-	**	PJN400N06SA-AU* (0.6)
100	2	PJQ2570AW-AU (90)	PJQ4580AP-AU (90)	PJQ5580A-AU (90)	-	**	**	**
		-	PJQ4576AP-AU (13.7)	PJQ5576A-AU (13.3)	-	PJD50N10SA-AU (14.1)	**	**
		-	PJQ4574AP-AU (9.1)	PJQ5574A-AU (8.4)	-	PJD65N10SA-AU (9.2)	PJP80N10SA-AU (9.2)	**
		-	-	PJQ5572A-AU (5.9)	-	PJD70N10SA-AU (6)	PJP95N10SA-AU (6)	**
		-	-	PJQ5570A-AU (3.8)	-	PJD100N10SA-AU (3.8)	PJP130N10SA-AU (3.8)	**
		-	-	-	-	-	PJP160N10SA-AU (3)	PJN200N10SA-AU* (2.8)
		-	-	-	-	-	**	PJN300N10SA-AU* (1.1)
150	3	-	PJQ4594P-AU (40)	PJQ5594-AU (39)	-	PJD30N15S-AU (39.5)	**	**
		-	-	PJQ5592-AU (17)	-	PJD45N15S-AU (19.6)	**	**
		-	-	PJQ5590-AU (13.2)	-	PJD50N15S-AU (12.5)	**	**
		-	-	-	-	-	PJP100N15S-AU (7.5)	**
		-	-	-	-	-	PJP150N15S-AU (4.5)	**
		-	-	-	-	-	PJP200N15S-AU (4)	PJN220N15S-AU* (3.8)
		-	-	-	-	-	**	PJN240N15S-AU* (3.2)

\* Under Development    \*\* By Request    - Package Limitation