

40V Automotive-grade N-Channel MOSFET

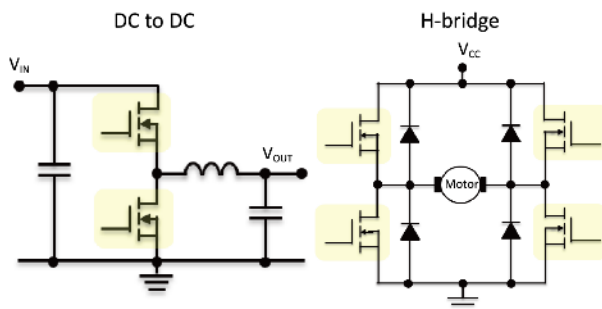
AEC-Q101 qualified with 175°C junction temperature

PANJIT's latest N-channel power MOSFETs are designed with advanced trench technology to provide excellent figure of merit(FOM), lower $R_{DS(ON)}$ and capacitance. The new design reduces conduction losses and switching losses while boosting electrical performances. They are available in DFN3x3, DFN5x6, TO-252 and TO-263 packages, which are low profile packages that save spaces. PANJIT offers a comprehensive solution for highly efficient, reliable and space saving PCB layout applications.

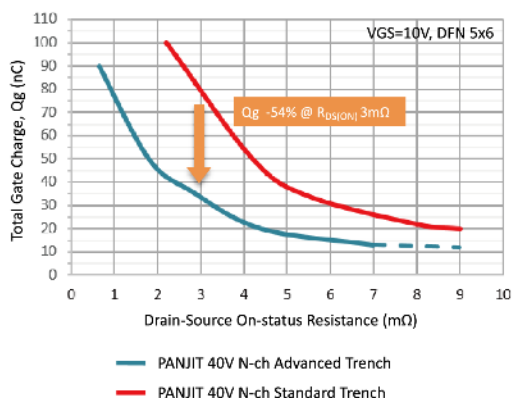
► Features

- 40V N-channel advanced trench
- Low $R_{DS(ON)}$ to minimize conduction losses
- Low FOM to minimize driver losses
- Standard and logic level available
- AEC-Q101 qualified and PPAP capable
- 175°C operating junction temperature

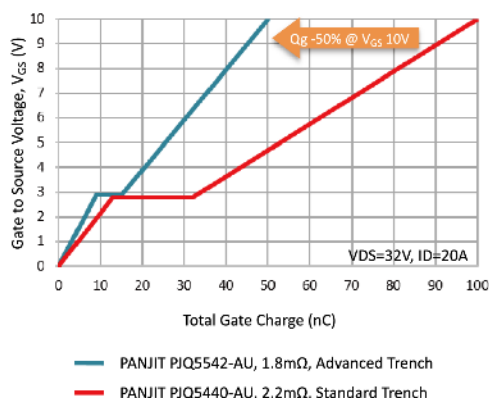
► Block Diagrams



► Figure of Merit (FOM)



► Gate Charge Characteristic



► Target Applications

Automotive



- Power motor drive
- Oil & water pumps
- Infotainment
- ADAS
- Sensor

Power System



- Power supply
- LED lighting
- DC power tool
- Control board
- BMS

Industrial



- Data center
- Telecom
- Server
- Robot
- DC Fan

Consumer



- Wireless charger
- Quick charger
- Vacuum cleaner
- Small appliance
- Drone

► Products

Series	BV	V _{GS}	R _{DS(ON)}		V _{th}	DFN3333-8L	DFN5060-8L	DFN5060B-8L	TO-252AA	TO-263
	10V	4.5V	10V	4.5V						
	(V)	(V)	typ.(mΩ)			(V)				
40V SGT, LL	40	±20	7.1	9.7	1.8	PIQ4548P-AU	PIQ5548-AU	PIQ5948-AU	PJD30N04S-AU	
			4.2	5.6		PIQ4546P-AU	PIQ5546-AU	PIQ5946-AU	PJD55N04S-AU	
			2.8	3.5			PIQ5544-AU		PJD60N04S-AU	
			1.8	2.4			PIQ5542-AU		PJD65N04S-AU	
			1.5	1.9			PIQ5540-AU		PJD80N04S-AU	
			0.81	1.3			PIQ5540C-AU			PJB180N04S7
			0.65	1.0			PIQ5538C-AU			PJB240N04S7
40V SGT, SL	40	±20	8	-	2.8	PIQ4548VP-AU	PIQ5548V-AU	PIQ5948V-AU	PJD25N04V-AU	
			4.4	-		PIQ4546VP-AU	PIQ5546V-AU	PIQ5946V-AU	PJD50N04V-AU	
			2.9	-			PIQ5544V-AU		PJD55N04V-AU	
			2.3	-			PIQ5542V-AU		PJD60N04V-AU	
			1.6	-			PIQ5540V-AU		PJD75N04V-AU	
			1.2	-			PIQ5540VC-AU			PJB180N04V7
			0.95	-			PIQ5538VC-AU			PJB240N04V7