

Rev.A Aug.-2024

PDFN5 6 N

N-Channel MOSFET in a PDFN5×6 Plastic Package.

$V_{DS}(V)=40\text{ V}$ $I_D=98\text{ A}$

$R_{DS(ON)}@10V\leq 3.5\text{ m}\Omega$ (Typ.3.0mR)

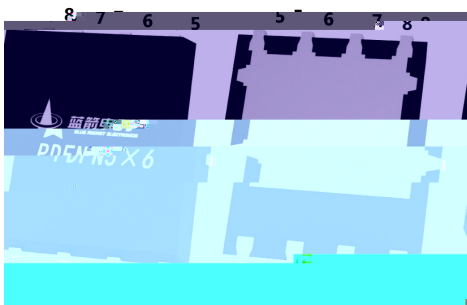
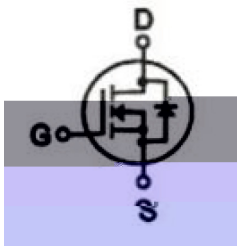
$R_{DS(ON)}@4.5V\leq 5.0\text{ m}\Omega$ (Typ.4.0mR)

AEC-Q101

Qualified to AEC-Q101 Standards for High Reliability,

HF Product.

Battery Management, High Frequency Point-of-Load Synchronous Buck Converter for MB/NB/UMPC/VGA, Networking DC-DC Power System, Load Switch, Meet the stringent requirements of automotive applications.



PIN1、2、3: S PIN4: G PIN5、6、7、8: D

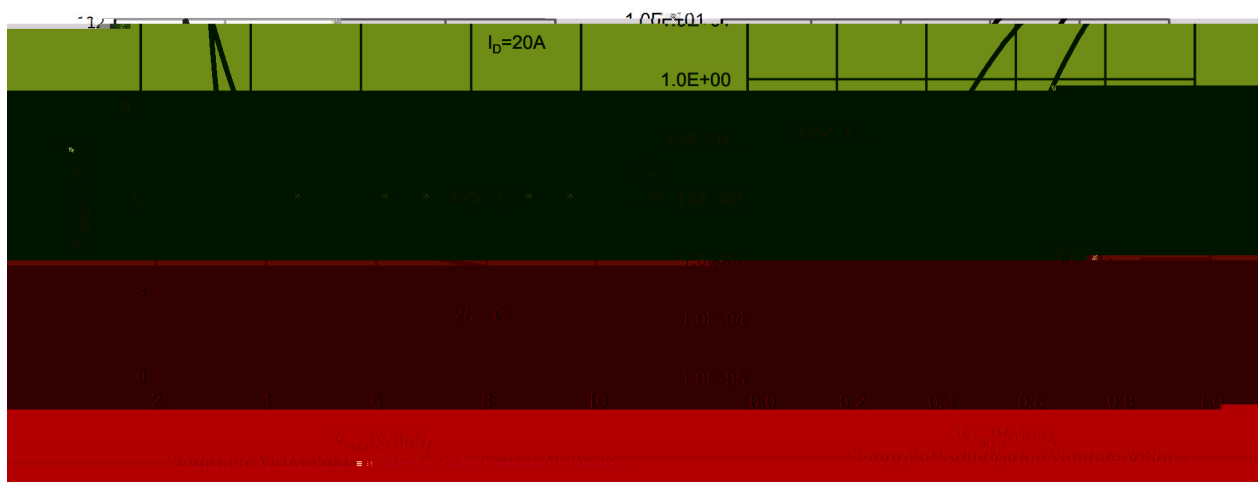
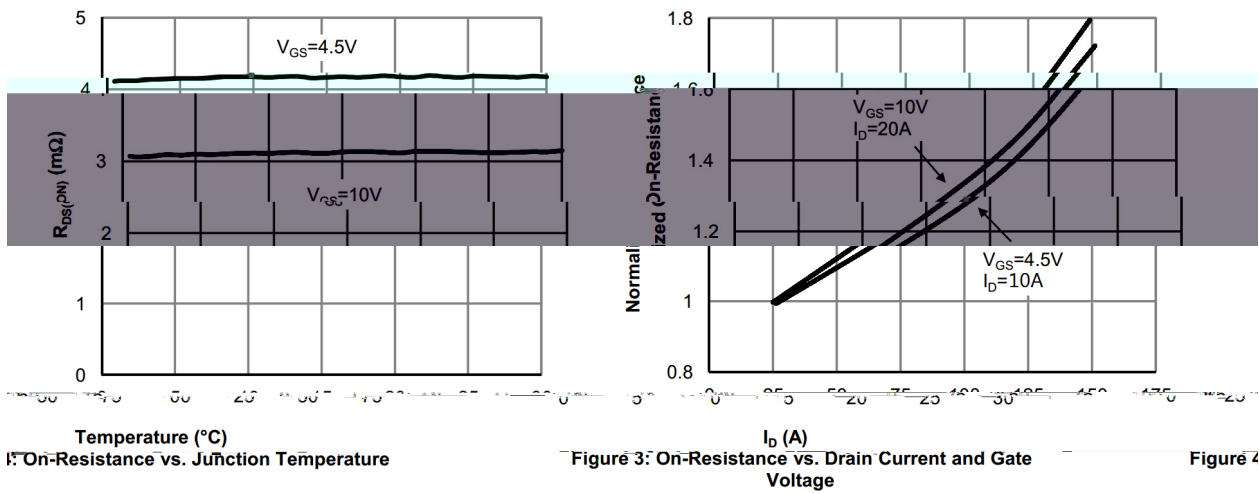
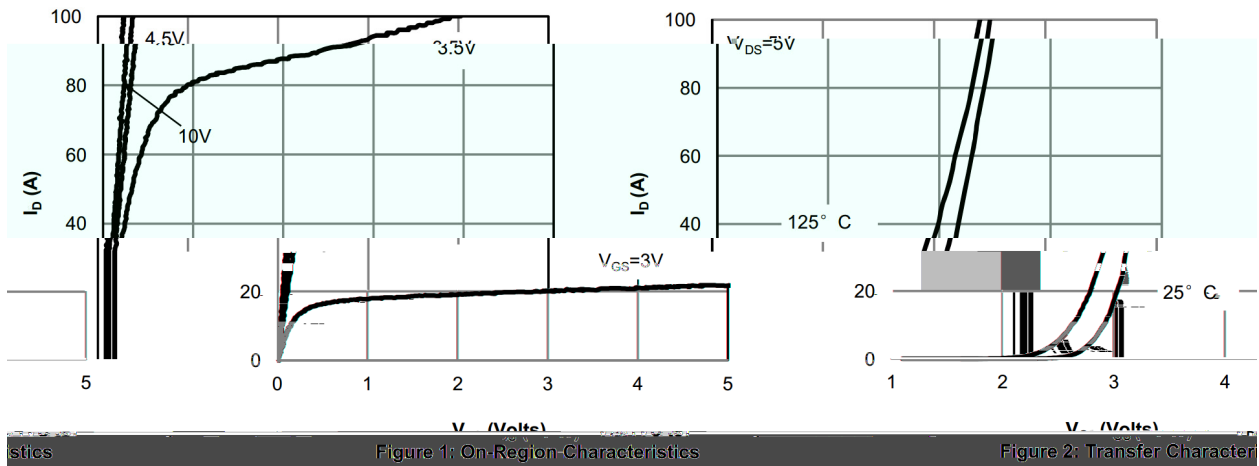
See Marking Instructions.

Parameter		Symbol	Rating	Unit
Drain-Source Voltage		V_{DS}	40	V
Continuous Drain Current		$I_D(T_c=25^{\circ}C)$	98	A
Pulsed Drain Current		I_{DM}	195	A
Gate-Source Voltage		V_{GS}	± 20	V
Power Dissipation		$P_D(T_c=25^{\circ}C)$	60	W
Avalanche energy(L=0.5mH)		E_{AS}	435	mJ
Avalanche Current(L=0.5mH)		I_{AS}	33	A
Junction and Storage Temperature Range		T_j, T_{stg}	-55 to 150	
Maximum Junction-to-Ambient	$t \leq 10s$	$R_{\theta JA}$	22	/ W
	Steady-State		53	
Maximum Junction-to-Case	Steady-State	$R_{\theta JC}$	2.08	

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Drain-Source Breakdown Voltage	BV_{DSS}	$V_{GS}=0V$ $I_D=250\mu A$	40	44		V
Zero Gate Voltage Drain Current	I_{DSS}	$V_{DS}=40V$ $V_{GS}=0V$			1.0	μA
Gate-Body Leakage Current						
Forward	I					



Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Turn-On Delay Time	$t_{d(on)}$	$V_{GS}=10V$ $V_{DS}=20V$ $R_L=1\ \Omega$ $R_{GEN}=3\ \Omega$		11		ns
Turn-On Rise Time	t_r			11		
Turn-Off Delay Time	$t_{d(off)}$			40		
Turn-Off Fall Time	t_f			10		



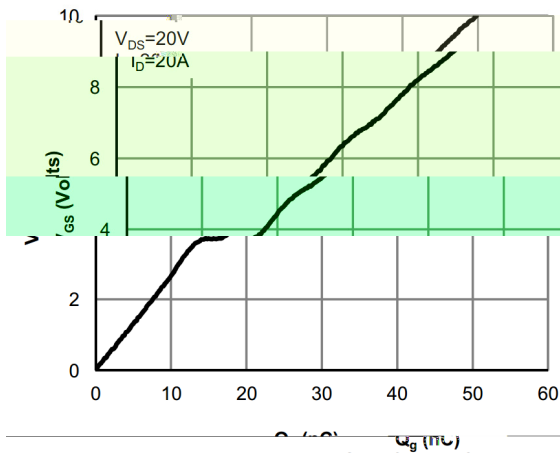


Figure 7: Gate-Charge Characteristics

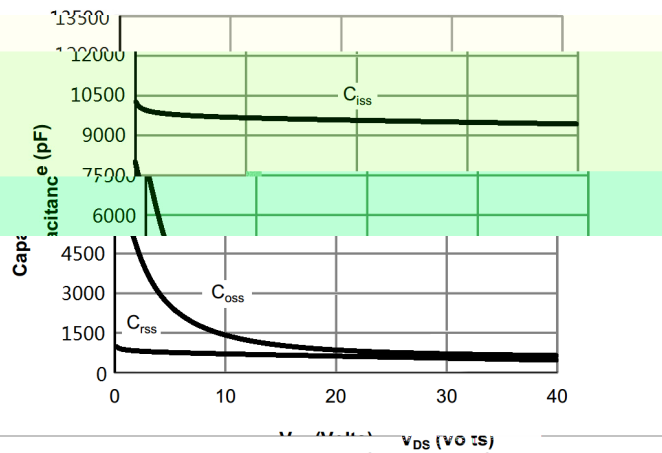


Figure 8: Capacitance Characteristics

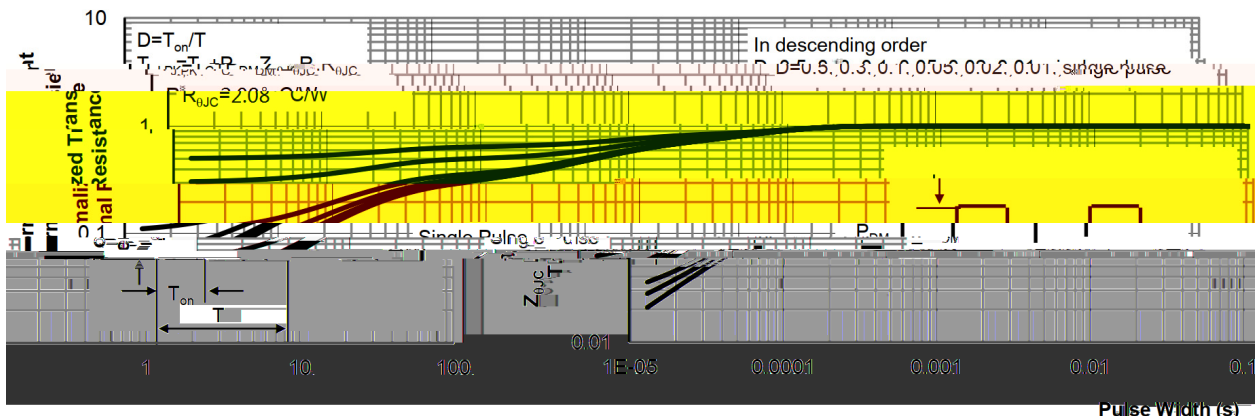
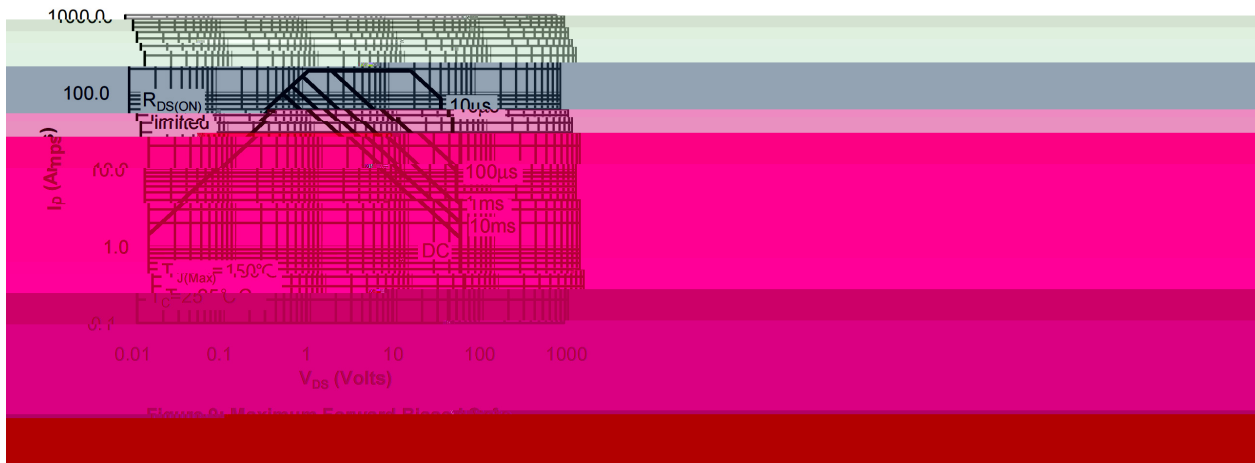
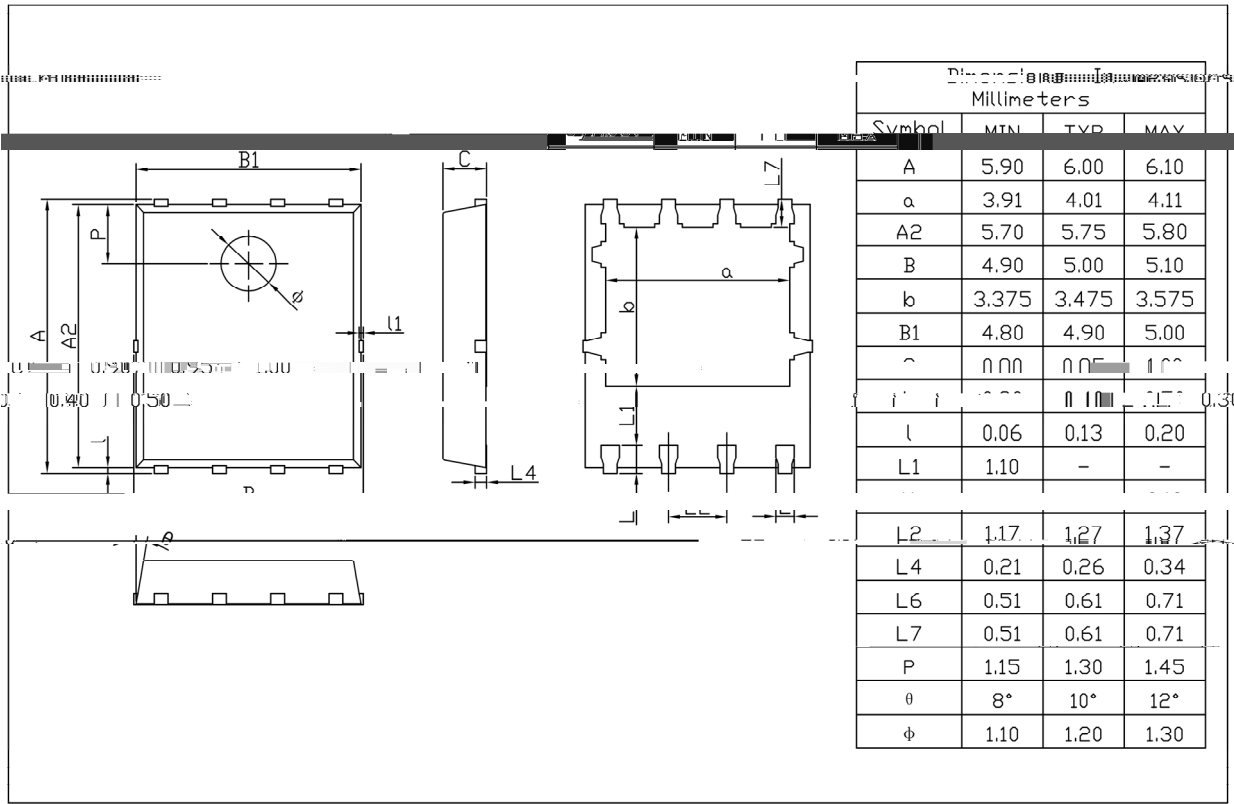


Figure 10: Normalized Maximum Transient Th

PDFN5 X6

Unit:mm



Rev.01 202209

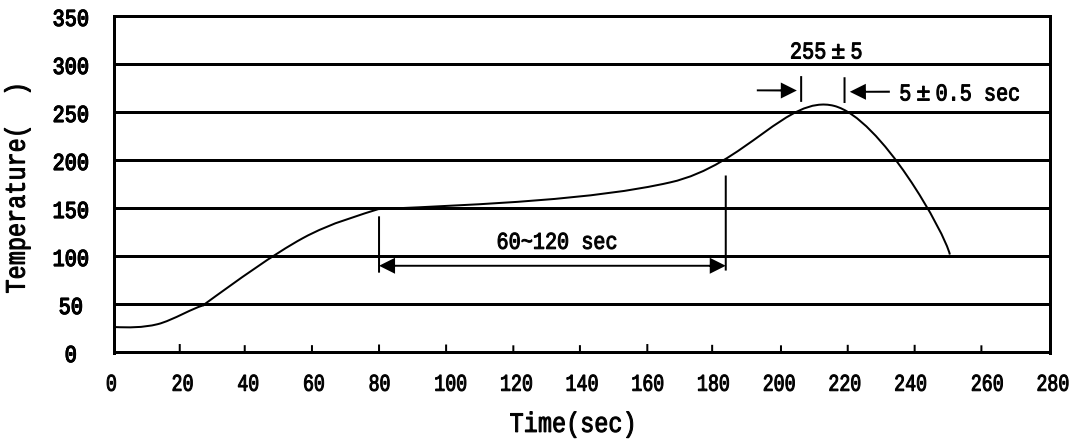


035N04S

Note

BR	Company Code
Q:	Automobile halogen-free product Code
035N04S	Product Type Code
*****:	Lot No. Code, code change with Lot No

Temperature Profile for IR Reflow Soldering(Pb-Free)



Note:

- 1

150 200

60 120sec;

1.Preheating:150~200 , Time:60~120sec.
- 2

255 5

5 0.5sec;

2.Peak Temp.:255 5 , Duration:5 0.5sec.
- 3

2 10 /sec.

3. Cooling Speed: 2~10 /sec.

260 5

10 1 sec.

Temp.:260±5

Time:10±1 sec

/ REEL

Package Type	Units					Dimension (unit mm ³)		
	Units/Reel	Reels/Inner Box	Units/Inner Box	Inner Boxes/Outer Box	Units/Outer Box	Reel	Inner Box	Outer Box
PDFN5×6	5,000	2	10,000	6	60,000	13"×12	360×360×50	380×335×366