

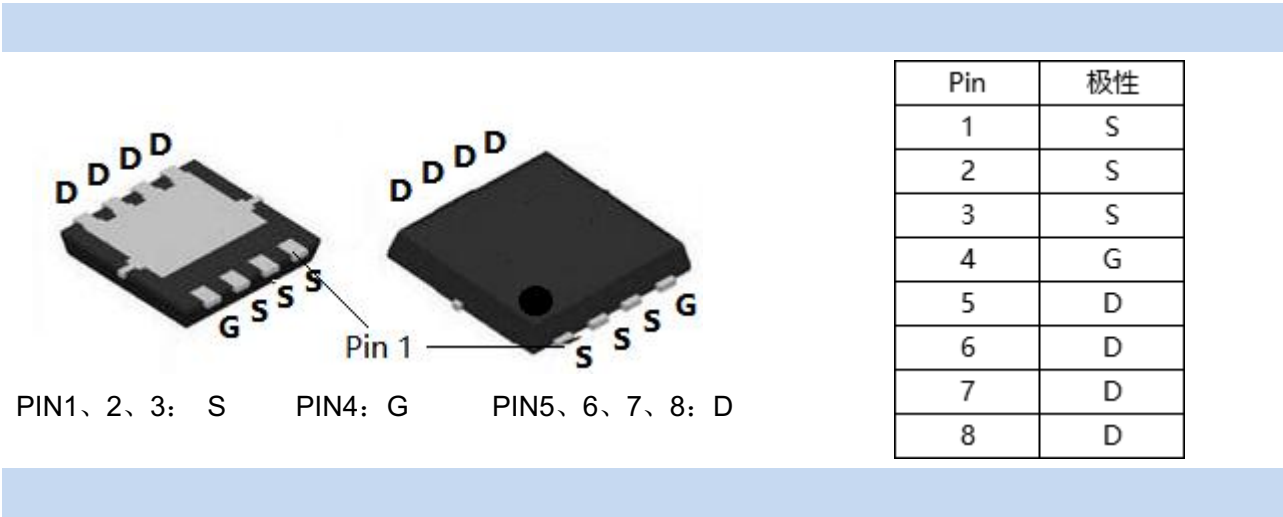
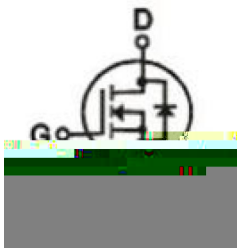


A	2020.12.20	All	AOS-AONS36302		

PDFN5×6 N

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

MB/NB/UMPC/VGA	Buck	-
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Pin	极性
1	S
2	S
3	S
4	G
5	D
6	D
7	D
8	D

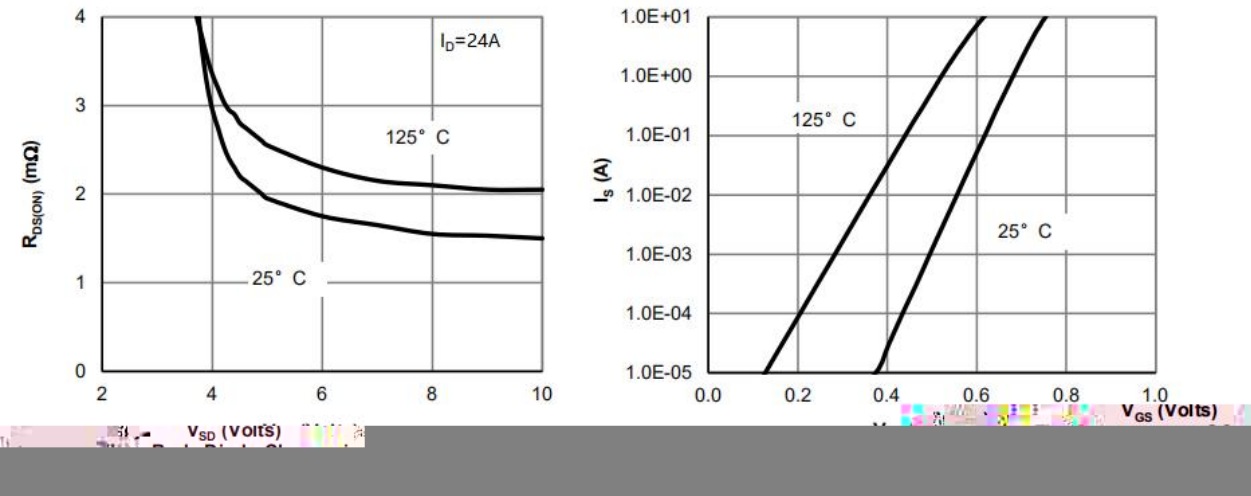
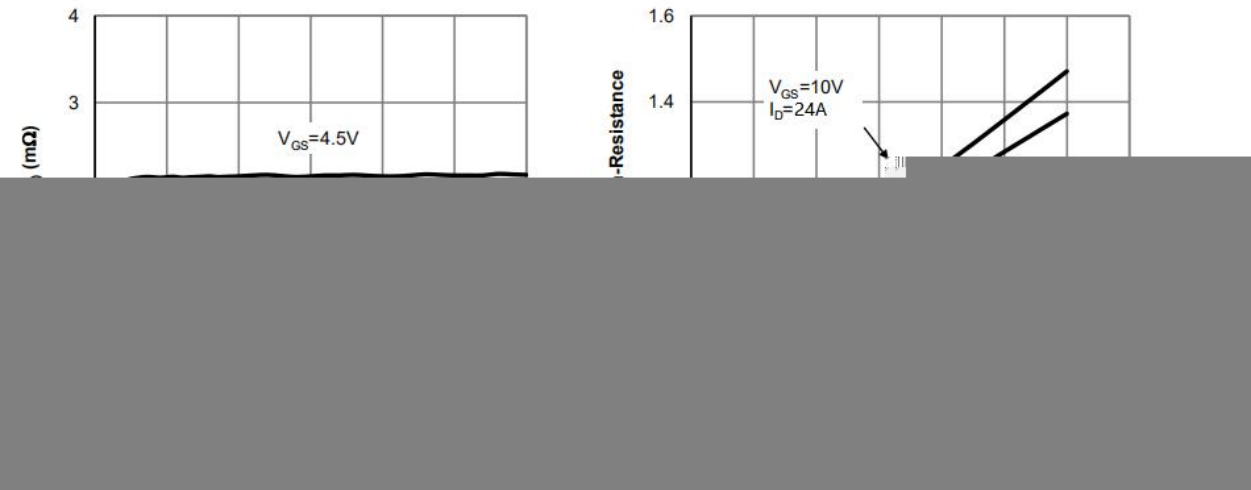


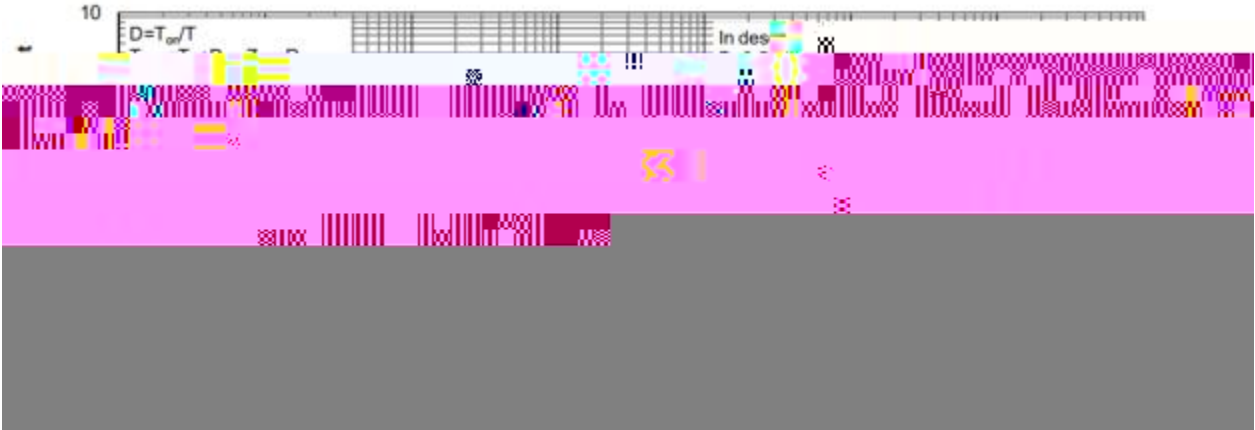
# \$ Parameter		% & Symbol	\$ ' Rating	() Unit
Drain-Source Voltage		V _{DS}	30	V
Drain Current - Continuous		I _D	146	A
Drain Current – Pulsed		I _{DM}	300	A
Gate-Source Voltage		V _{GS}	± 20	V
Power Dissipation		P _D (T _c =25℃)	57	W
Single Pulse Avalanche Energy(L=0.5mH)		E _{AS}	315	mJ
Avalanche Current(L=0.5mH)		I _{AS}	30	A
Junction and Storage Temperature Range		T _j , T _{stg}	-55 to 150	℃
Thermal resistance, junction - ambient	t ≤ 10s	R _{θJA}	20	℃ / W
	Steady-State		50	
Thermal resistance, junction - case	Steady-State	R _{θJC}	2.2	

# \$ Parameter	% & Symbol	* + , - Test Conditions	. / ' Min	0 1 ' Typ	. 2 ' Max	() Unit
Drain-Source Breakdown Voltage	BV_{DSS}	$I_D=250\mu\text{A}, V_{GS}=0\text{V}$	30	35		V
Zero Gate Voltage Drain Current	I_{DSS}	$V_{DS}=30\text{V}, V_{GS}=0\text{V}$			1.0	μA
Gate-Body leakage current	I_{GSS}	$V_{DS}=0\text{V}, V_{GS}=\pm 20\text{V}$			± 100	nA
Gate Threshold Voltage	$V_{GS(th)}$	$V_{DS}=V_{GS}, I_D=250\mu\text{A}$	1	1.6	3	V
Static Drain-Source On-Resistance	$R_{DS(ON)}$	$V_{GS}=10\text{V}, I_D=24\text{A}$		1.5	1.8	m Ω
		$V_{GS}=4.5\text{V}, I_D=12\text{A}$		2.0	2.8	
Diode Forward Voltage	V_{SD}	$I_S=1\text{A}, V_{GS}=0\text{V}$		0.68	1	V
Input Capacitance	C_{iss}	$V_{DS}=25\text{V}, V_{GS}=0\text{V}$ $f=1.0\text{MHz}$		8500		pF
Output Capacitance	C_{oss}			890		
Reverse Transfer Capacitance	C_{rss}			670		
Gate resistance	R_g	$V_{GS}=0\text{V}, V_{DS}=0\text{V}$ $f=1\text{MHz}$		1.8		Ω
Total Gate Charge	$Q_{g(10V)}$	$V_{GS}=10\text{V}, V_{DS}=15\text{V},$ $I_D=20\text{A}$		60		nC
Total Gate Charge	$Q_{g(4.5V)}$			28		
Gate Source Charge	Q_{gs}			12		
Gate Drain Charge	Q_{gd}			9.5		



# \$ Parameter	% & Symbol	* + , - Test Conditions	. / ' 0 1 ' Min Typ	. 2 ' Max	() Unit
Turn-On Delay Time	$t_{d(on)}$	$V_{GS}=10V$ $V_{DS}=15V$ $R_L=0.75\ \Omega$ $R_{GEN}=3\ \Omega$		12.5	ns
Turn-On Rise Time	t_r			6.0	
Turn-Off Delay Time	$t_{d(off)}$			47	
Turn-Off Fall Time	t_f			10.5	

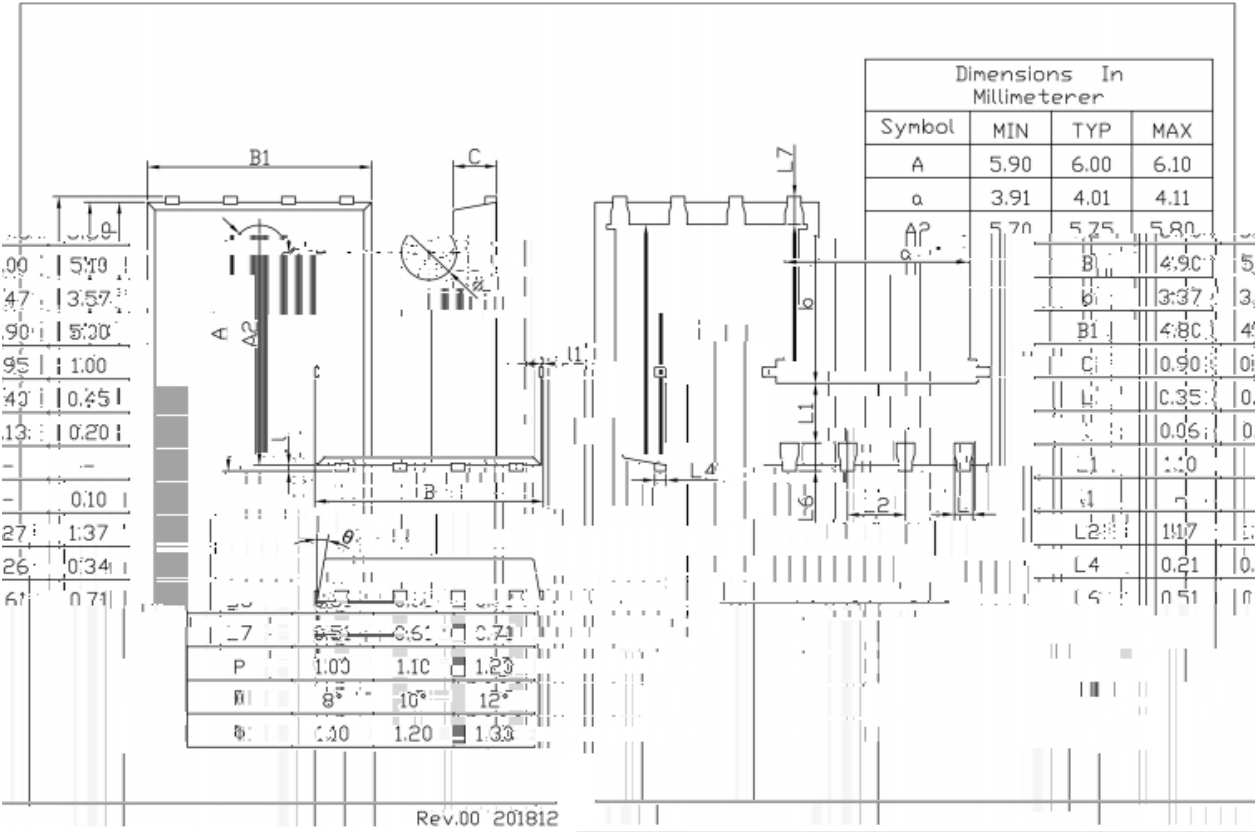


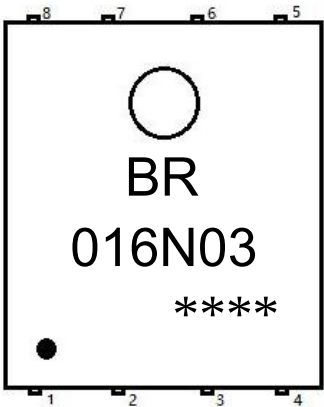




PDFN5 X6

Unit:mm

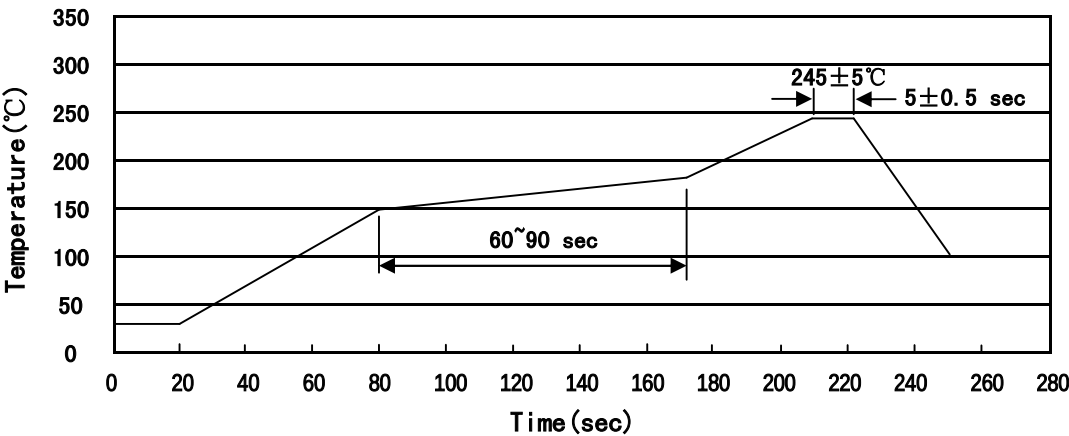




! " 3	
BR 3	4 5 6 7 8
016N03 3	4 1 & 7 8
**** 3	4 9 : ; & 7 8 < = 9 : ; & > ?
Note:	
BR:	Company Code.
016N03:	Product Type Code.
****:	Lot No. Code, code change with Lot No.



Temperature Profile for IR Reflow Soldering(Pb-Free)



Note:

- 1

150 180

60 90sec;

1.Preheating:150~180°C, Time:60~90sec.
- 2

245±5

5±0.5sec;

2.Peak Temp.:245±5°C, Duration:5±0.5sec.
- 3

2 10°C/sec.

3. Cooling Speed: 2~10°C/sec.

260±5°C 10±1 sec. Temp.:260±5°C Time:10±1 sec

/ REEL

Package Type 封装形式	Units 包装数量					Dimension 包装尺寸 (unit: mm ³)		
	只/卷盘	卷盘/盒	只/盒	盒/箱	只/箱		盒	箱
PDFN5 × 6	5000	2	10000	6	60000	13" × 12	360 × 360 × 50	380 × 335 × 366