

5 é / Descriptions

PDFN5×6 / x N ?ú 3 « | • ' ož

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

□ ª / Features

 $V_{DS}(V)=40V$ $I_D=60A$ $R_{DS(ON)}@10V$ "6m Ÿ(Typ. 5.6m) $R_{DS(ON)}@4.5V$ "9m (Typ.7.8m)

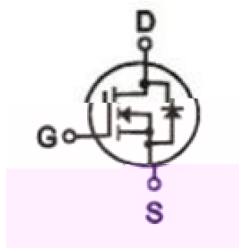
—)í D } ÄHF Product.

Đ ÷ / Applications

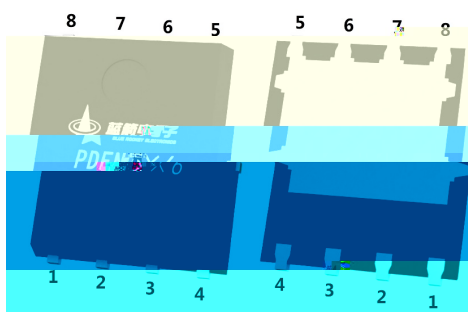
P ' ò k MB/NB/UMPC/VGA ä È ě ú µ c 5 Buck J E ~ k û à + v - + v © Ĩ k ě > • ¼ ož

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

Ä W] Ô · / Equivalent Circuit



• Ô - æ / Pinning



PIN1 Ä2 Ä3 Ö S

PIN4 ÖG

PIN5 Ä6 Ä7 Ä8 ÖD

, M V / Marking

• - ~ ª ¢ ož

See Marking Instructions.

@ f Parameter		... Z Symbol	f > Rating	% y Unit
Drain-Source Voltage		V _{DSS}	40	V
Drain Current		I _D (T _C =25 °C)	60	A
Drain Current - Pulsed		I _{DM}	120	A
Gate-Source Voltage		V _{GS}	±20	V
Single Pulsed Avalanche Energy		E _{AS}	300	mJ
Avalanche Current		I _{AS}	24.5	A
Power Dissipation		P _D (T _C =25 °C)	37	W
Operating and Storage Temperature Range		T _J , T _{stg}	-55 to 150	
Thermal resistance, junction - ambient	t 0 10s	R _{θJA}	25	/ W
	Steady-State		55	
Thermal resistance, junction - case	Steady-State	R _{θJC}	3.4	

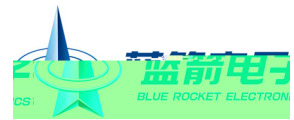
@ f Parameter	... Z Symbol	y i Ú ^ Test Conditions	Â 4 > Min	Á ° > Typ	Â Ý > Max	% y Unit
Drain-Source Breakdown Voltage	BV_{DSS}	$V_{GS}=0V$ $I_D=250\text{ }\mu\text{A}$	40	46		V
Zero Gate Voltage Drain Current	I_{DSS}	$V_{DS}=40V$ $V_{GS}=0V$				

Electrical Characteristics(Ta=25℃ ;)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Turn-On Delay Time	t _{d(on)}	V _{GS} =10V V _{DS} =20V I _D =20A R _{GEN} =3.3Ω		11		ns
Turn-On Rise Time	t _r			69		
Turn-Off Delay Time	t _{d(off)}			39		
Turn-Off Fall Time	t _f			9.3		

BRCS060N04ZC

Rev.B Mar.-2025

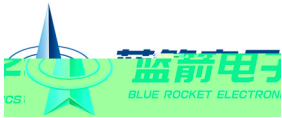


DATA SHEET

060N04ZC / Electrical Characteristic Curve

060N04ZC / Electrical Characteristic Curve

Ø □ =) ¢ / Package Dimensions

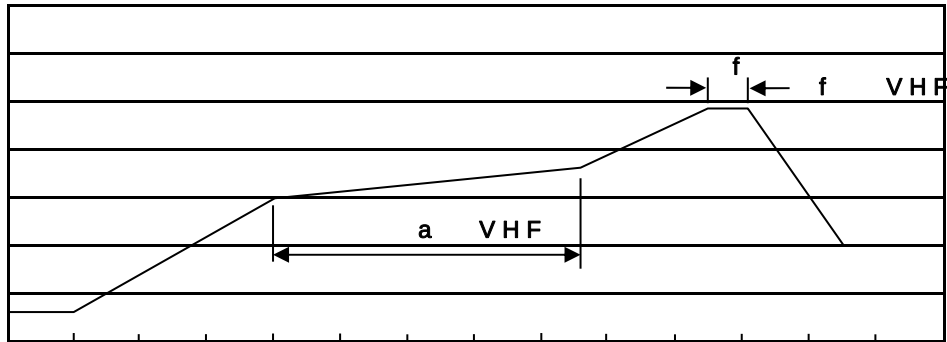


, M y f / Marking Instructions

^a ϕ y
(8 y , [W A
060N04 y ° Z W A

šWD t...•Žč (x/) / :KSVKXGZ[XK 6XULORK LUX /8 8KLRU] 9URJKXOTM 6

7HPSHUDWXUH



7LPH VHF

a ç y

10• Ä ½ “† 150 ½180 - k ž • 60 ½90sec;

20• Q > “† 245 r5 - k ž • 4 Ò 5 r0.5sec;

30•D N ò i Ò 0 ,† 2 ½10 - /sec.

Note:

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

2.Peak Temp.:245 r5 - , Duration:5 r0.5sec.

3. Cooling Speed: 2~10 - /sec.

ÂD /Cã p ¯ »] / Resistance to Soldering Heat Test Conditions

“† y 260 r5 -

ž • y 10 r1 sec.

Temp.:260±5

Time:10±1 sec

G P á / Packaging SPEC.

2 & x / REEL

Package Type / x ¥ "	Units ;>û H					Dimension ;>û p . (unit /mm³)		
	Units/Reel Q 2 &	Reels/Inner Box 2 & "	Units/Inner Box Q "	Inner Boxes/Outer Box " "	Units/Outer Box Q "	Reel	Inner Box	Outer Box
PDFN5×6	5,000	2	10,000	6	60,000	13"×12	360×360×50	380×335×366

„Đ y f / Notices