PDFN5 ˜6 / x N ?ú 3 « | • ’ ož
N-Channel MOSFET in a PDFN5×6 Plastic Package.

V_{DS}(V)=30 V I_D=95A
$R_{DS(ON)}$@10V ”3.6m Ÿ(Typ.3.5mR)
$R_{DS(ON)}$@4.5V ”6.5m Ÿ(Typ.5.0mR)
—)í D } ÄHF Product.

P ’ ò k 3 (4 (; 3 6) < - ' ä È ¿ ú µ c 5 ([I Q J E ˜ k û à + v + v © Ï k ¿ > • ¼ož
Battery Management,High Frequency Point-of-

Ã a ? d / Absolute Maximum Ratings(T a=25 ;)

@ ƒ Parameter		… Z Symbol	ƒ › Rating	% y Unit
Drain-Source Voltage		V_{DS}	30	V
Continuous Drain Current		I_D	95	A
Pulsed Drain Current		I_{DM}	175	A
Gate-Source Voltage		V_{GS}	f 20	V
Power Dissipation		$P_D(T_c=25$)	55	W
Avalanche energy(L=0.5mH)		E_{AS}	281	mJ
Avalanche Current(L=0.5mH)		I_{AS}	26.5	A
Junction and Storage Temperature Range		T_j, T_{stg}	-55 to 150	-
Maximum Junction-to-Ambient	t 0 10s	R ©JA	25	/ W
	Steady-State		55	
Maximum Junction-to-Case	Steady-State	R ©JC	2.3	

Ô4ì × ? d / Electrical Characteristics(Ta=25 ;)

@ ƒ Parameter	… Z Symbol	y ¡ Ú ^ Test Conditions	Â 4 › Min	Á º › Typ	Â Ý › Max	% y Unit
Drain-Source Breakdown Voltage	BV_{DSS}	I_D=250uA, V_{GS}=0V	30	33		V
Zero Gate Voltage Drain Current	I_{DSS}	V_{DS}=30V, V_{GS}=0V			1.0	uA
Gate-Body leakage current	I_{GSS}	V_{DS}=0V, V_{GS}= ±20V			±100	nA
Gate Threshold Voltage	$V_{GS(th)}$	V_{DS}=V_{GS}, I_D=250uA	1	1.7	3.0	V
Static Drain-Source On-Resistance	$R_{DS(ON)}$	V_{GS}=10V, I_D=20A		3.5	3.6	m S
		V_{GS}=4.5V, I_D=10A		5.0	6.5	
Diode Forward Voltage	V_{SD}	I_S=1A, V_{GS}=0V			1.4	V
Input Capacitance	C_{iss}	V_{DS}=25V V_{GS}=0V f=1.0MHz		2200		pF
Output Capacitance	C_{oss}			145		
Reverse Transfer Capacitance	C_{rss}			210		
Gate resistance	R_g	V_{GS}=0V V_{DS}=0V f=1MHz		2.0		

Ô4ì × ? d / Electrical Characteristics(Ta=25 ;)

@ *f* Parameter	… Z Symbol	y ¡ Ú ^ Test Conditions	Â 4 › Min	Á º › Typ	Â Ý › Max	% y Unit
Total Gate Charge	$Q_{g(10V)}$	V_{GS}=10V V_{DS}=15V I_D=20A		32		nC
Total Gate Charge	$Q_{g(4.5V)}$			15		
Gate Source Charge	Q_{gs}			5.2		
Gate Drain Charge	Q_{gd}			6.5		
Turn-On Delay Time	$t_{d(on)}$	V_{GS}=10V V_{DS}=15V R_L=0.75 ¡ R_{GEN}=3 ¡		8.5		ns
Turn-On Rise Time	t_r			4.2		
Turn-Off Delay Time	$t_{d(off)}$			30		
Turn-Off Fall Time	t_f			5.7		

Ô ? d • Ž ¢ / Electrical Characteristic Curve

Ø ¤ =) ¢ / Package Dimensions

, M y ƒ / Marking Instructions

BR
035N03
****

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(8 y ¸ [W A
035N03 y D } º Z
y ÿ D Z W A k š ÿ D Z J

Note y

BR y	Company Code
035N03 y	Product Type Code
****:	Lot No. Code, code change with Lot No

š WD t … • Ž ¢ (x /) / : K S V K X G Z [X K 6 X U L O R K L U X / 8 8 K L R U] 9 U R J K X O T M 6

ª ¢ y

1o• Ä ½ “ † 150 ½180 - k ž • 60 ½90sec;

2o• Q › “ † 245 r 5 - k ž • 4 Ò 5 r 0.5sec;

3o•D N ò i Ò 0 , † 2 ½10 - /sec.

Note:

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

2.Peak Temp.:245 r 5 - , Duration:5 r 0.5sec.

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

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

“ † y 260 r 5 - ž • y 10 r 1 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 Æmm³)