

5 é / Descriptions

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N-Channel Enhancement Mode Field Effect Transistor in a DFN2×2B-6LPlastic Package.

□ ^a / Features

V_{DS} (V) =20V I_D =8A (V_{GS} = f 12V)

$R_{DS(ON)}$ @10V<14m (Typ. 12m)

$R_{DS(ON)}$ @4.5V<20m (Typ. 15m)

—)í D } ožHF Product.

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Suited for low voltage applications such as automotive, DC/DC Converters, and high efficiency switching for power management in portable and battery operated products.

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See Marking Instructions.

@ f Parameter		... Z Symbol	f > Rating	% y Unit
Drain-Source Voltage		V _{DSS}	20	V
Drain Current		I _D	8	A
Gate-Source Voltage		V _{GS}	±12	V
Avalanche Current		I _{AS}	12	A
Single Pulsed Avalanche Energy		E _{AS}	115	mJ
Power Dissipation		P	2.8	W
Junction Temperature Range		T _j	150	
Storage Temperature Range		T _{stg}	-55 150	
Maximum Junction-to-Ambient	t 0 10s	R Θ JA	45	/W
	Steady-State	R Θ JA	80	

@ 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 A	20	22		V
Zero Gate Voltage Drain Current	I _{DSS}	V _{DS} =20V	V _{GS} =0V			1.0	A
Gate-Body Leakage Current Forward	I _{GSS}	V _{GS} =±12V	V _{DS} =0V			±0.1	A
Static Drain-Source On-Resistance	R _{DS(on)}	V _{GS} =10V	I _D =8.0A		12	14	m
		V _{GS} =4.5V	I _D =8.0A		15	20	m
		V _{GS} =2.5V	I _D =8.0A		20	35	m
Gate Threshold Voltage	V _{GS(th)}	V _{DS} =V _{GS}	I _D =250 A	0.4	0.6	1.2	V
Drain-Source Diode Forward Voltage	V _{SD}	V _{GS} =0V	I _F =1.0A		0.7	1.35	V
Signal Source Resistance	R _g	F=1MHz			3.3		
Input Capacitance	C _{iss}	V _{DS} =10V f=1.0MHz	V _{GS} =0V		865		pF
Output Capacitance	C _{oss}				105		
Reverse Transfer Capacitance	C _{rss}				55		
Turn-On Delay Time	t _{d(on)}				2.7		
Turn-On Rise Time	t _r	V _{DS} =10V R _L =1.25	V _{GS} =4.5V R _{GEN} =3	3			ns

@ *f*

Ô ? d • Ž ¢ / Electrical Characteristic Curve

Ø □ =) ¢ / Package Dimensions

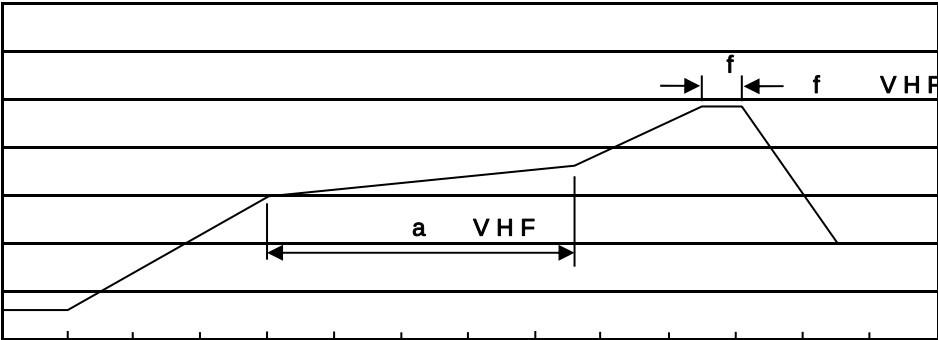
, M y f / Marking Instructions

BR
120N02L

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BR y , [W A
120N02L y ° Z W A
**** y ¨ D Z W A k š ¨ D Z J
Note:
BR: Company Code
120N02L: Product Type Code
****: Lot No. Code, code change with Lot No.

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7HPSHUDWXUH



7LPH VHF

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- 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 7>û ~ E	Units ;>û H					Dimension ;>û p . (unit Åmm³)		
	Units/Reel /-	Reels/Inner Box -- /-	Units/Inner Box /-	Inner Boxes/Outer Box - /1ç	Units/Outer Box /1ç	Reel	Inner Box	Outer Boxç
DFN2×2B-6L	4,000	10	40,000	4	160,000	7!v ×8	210×205×205	445×435×230

„Đ y f / Notices

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