

**PRODUCT PROGRAM**

Part Number	Input		Output			Efficiency (%Typ)
	Voltage(VDC)		Voltage (VDC)	Current(MA)		
	Nominal	Range		Max	Min.	
D050505NXT	5	4.5-5.5	5/5	100/100	10/10	70
D050909NXT	5	4.5-5.5	9/9	56/56	6/6	75
D051212NXT	5	4.5-5.5	12/12	42/42	4/4	79
D051515NXT	5	4.5-5.5	15/15	33/33	3/3	80
D120505NXT	12	10.8-13.2	5/5	100/100	10/10	72
D120909NXT	12	10.8-13.2	9/9	56/56	6/6	75
D121212NXT	12	10.8-13.2	12/12	42/42	4/4	78
D121515NXT	12	10.8-13.2	15/15	33/33	3/3	80

Note: The D\_NXT-W2/W5 series also are available in our company.

**MODEL SELECTION**

**D<sup>①</sup>05<sup>②</sup>05<sup>③</sup>05<sup>④</sup>N<sup>⑤</sup>X<sup>⑥</sup>I<sup>⑦</sup>**

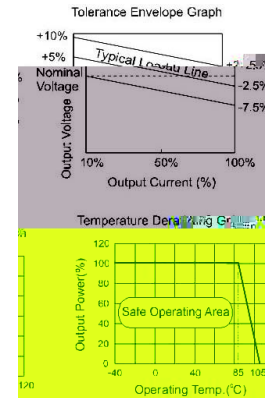
① 6                      q                      ②                      2                      2  
 ③                      q                      ④                      2                      2  
 ⑤                      6                      ⑥

### OUTPUT SPECIFICATIONS

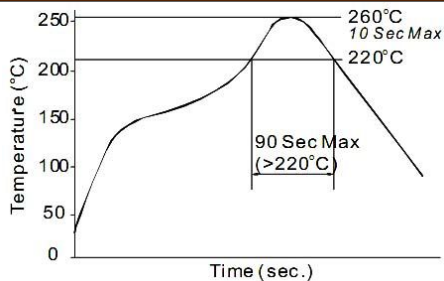
Item	Test Conditions	Min.	Typ.	Max.	Units
Output power		0.1		1	W
Line regulation	For Vin change of $\pm 1\%$			$\pm 1.2$	%
Load regulation	10% to 100% load(5V output)		12.8	15	%
Load regulation	10% to 100% load(9V output)		8.3	10	%
Load regulation	10% to 100% load(12V output)		6.8	10	%
Load regulation	10% to 100% load(15V output)		6.0	10	%
Output voltage accuracy	See tolerance envelope graph				
Temperature drift	100% full load			$\pm 0.03$	%/°C
Ripple & Noise*	20MHz Bandwidth		50	75	mVp-p
Switching frequency	Full load, nominal input		100		KHz

\*Test ripple and noise by "Parallel cable" method . See detailed operation instructions at Testing of Power Converter section, application notes.

### APPLICATION NOTE

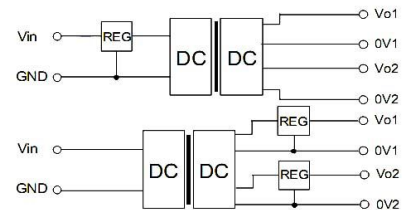
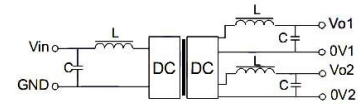


### RECOMMENDED REFLOW SOLDERING PROFILE



Remark: The curve applies only to the hot air reflow soldering

### RECOMMENDED CIRCUIT



### EXTERNAL CAPACITOR TABLE (TABLE 1)

Vin (VDC)	Cin (μF)	Vout (VDC)	CoUt (μF)
5	4.7	5	4.7
12	2.2	9	2.2
-	-	12	1
-	-	15	0.47

It's not recommended to connect any external capacitor in the application field with less than 0.5 watt output.

### TYPICAL CHARECTERISTICS

#### 1) Requirement On Output Load

To ensure this module can operate efficiently and reliably, a minimum load is specified for this kind of DC/DC converter in addition to a maximum load (namely full load). During operation, make sure the specified range of input voltage is not exceeded, the minimum output load could not be less than 10% of the full load. If the actual output power is very small, please connect a resistor with proper resistance at the output end in parallel to increase the load, or use our company products with a lower rated output power (D-NXT -W2/W5).

#### 2) Recommended testing circuit

If you want to further decrease the input/output ripple, an "LC" filtering network may be connected to the input and output ends of the DC/DC converter, see (Figure1).

It should also be noted that the inductance and the frequency of the "LC" Filtering network should be staggered with the DC/DC frequency to avoid mutual interference. However, the capacitance of the output filter capacitor must be proper. If the capacitance is too big, a startup problem might arise. For every channel of output, provided the safe and reliable operation is ensured, the greatest capacitance of its filter capacitor sees (Table 1).

#### 3) Output Voltage Regulation and Over-voltage Protection Circuit

The simplest device for output voltage regulation, over-voltage and over-current protection is a linear voltage regulator with overheat protection that is connected to the input or output end in series (Figure2).

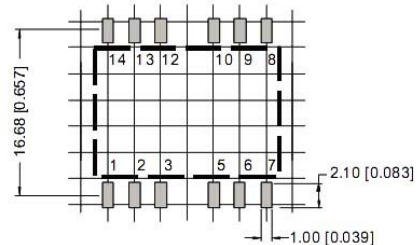
#### 4) Overload Protection

Under normal operating conditions, the output circuit of these products has no protection against overload. The simplest method is to connect a self-recovery fuse in series at the input end or add a circuit breaker to the circuit.

#### 5) Cannot use in parallel and hot swap

**OUTLINE DIMENSIONS& RECOMMENDED FOOTPRINT**

**RECOMMENDED FOOTPRINT**

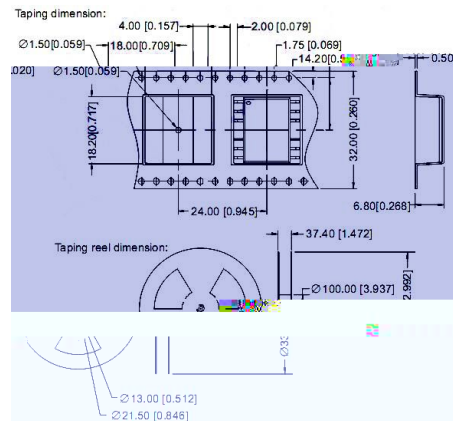


Note: grid 2.54\*2.54mm.

Pin	Function
1	GND
2	Vin
5	0V1
6	Vo1
9	Vo2
10	0V2
Others	NC

NC:No Connection

**REEL PACKING OUTLINE DIMENSIONS**



Note:

Unit :mm[inch]

General tolerances: ±0.50mm[ 0.020inch]

Per reel of packing quantity:400pcs

Inner package carton dimensions: L\*W\*H=365\*350\*105mm

Tube Quantity : 800pcs

Outer package carton dimensions: L\*W\*H=390\*360\*245mm

Tube Quantity:1600pcs

