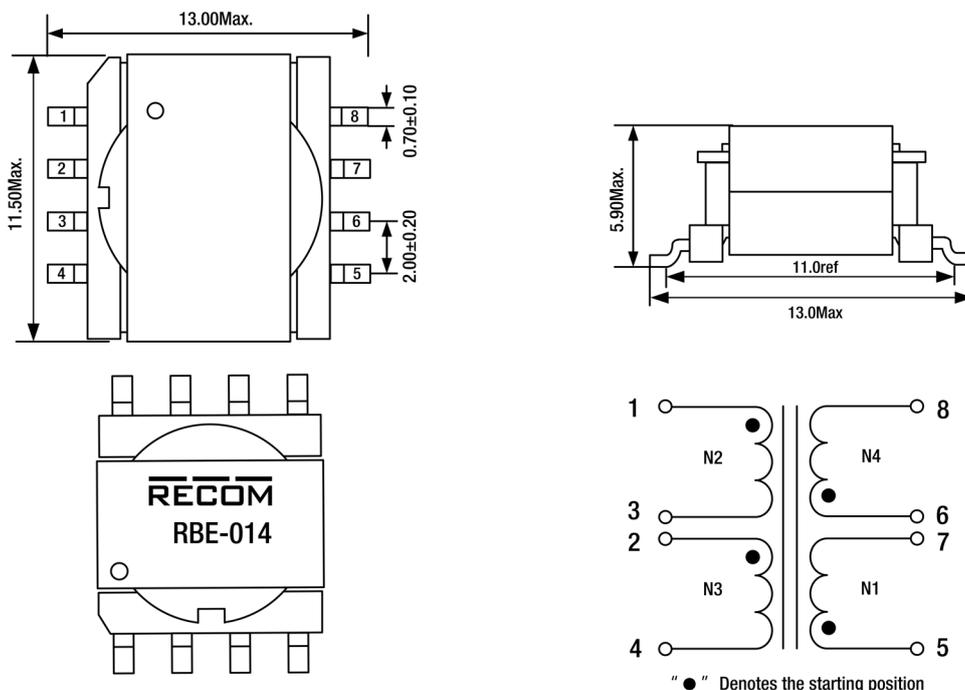


### PRODUCT FEATURES

- Small-Sized Isolation Transformer
- SMD Surface Mount Installation
- Isolation Voltage: 1500VDC/1minute
- Storage Temperature: -40~125°C
- Operating Temperature (Ambient Temperature + Temperature Rise): -40~125°C
- Reflow Soldering Temperature: Peak Temperature  $\leq 245^{\circ}\text{C}$ (10s)
- Number of Reflow Soldering Cycles: Recommended not to exceed 2 times
- Maximum Product Dimensions (MAX): 13.0mm  $\times$  11.5mm  $\times$  5.9mm

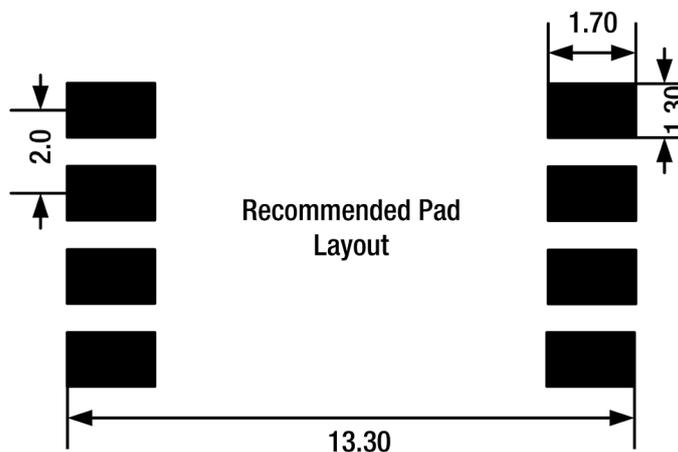
### DIMENSIONS AND SCHEMATIC DIAGRAM [mm]



### PRODUCT MARKING

Pin1	○
Marking	Company Logo
	Product Model

### RECOMMENDED LAND PATTERN [mm]



## ELECTRICAL PROPERTIES

Properties		Test Conditions	Value	Unit	Tol.
Inductance	L	1-3	11	$\mu\text{H}$	Typ.
Turns Ratio	n	N1:N2:N3:N4	1:0.63:0.81:1		
DC Resistance 1	$R_{\text{DC1}}$	1-3	0.35	$\Omega$	Max
DC Resistance 2	$R_{\text{DC2}}$	2-4	0.80	$\Omega$	Max
DC Resistance 3	$R_{\text{DC3}}$	5-7	0.35	$\Omega$	Max
DC Resistance 4	$R_{\text{DC4}}$	6-8	0.50	$\Omega$	Max
Leakage Inductance	$L_{\text{S}}$	1-3	0.38	$\mu\text{H}$	Max
Insulation Test Voltage	$V_{\text{T}}$	N2,3 : N1,4/60s/1mA	1500	V(DC)	1min.

## GENERAL INFORMATION

Operating Temperature	-40~125°C
Storage Conditions (in original packaging)	<40°C/<75%RH
Moisture Sensitivity Level (MSL)	1
Electrical Specifications @ 25°C unless otherwise noted	

## MATERIAL CERTIFICATION

ITEM		UL NO
1	BOBBIN	E41429
2	WIRE	E253843
3	TAPE	E165111
4	GLUE	E218090

## CERTIFICATION

RoHS Approval	Compliant [2011/65/EU&2015/863]
REACH Approval	Conform or declared [(EC)1907/2006]
Halogen Free	Conform [EN 14582:2016]

## TYPICAL APPLICATION

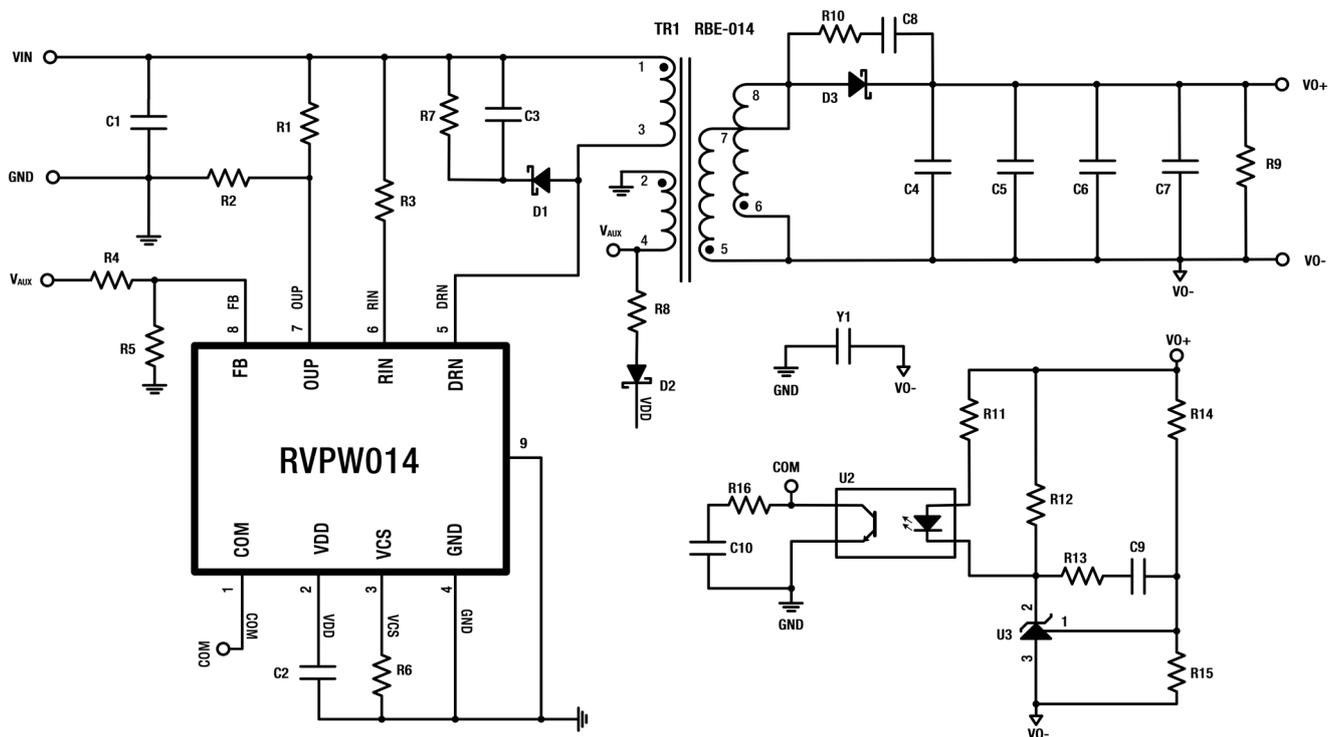
Input Voltage	$V_{\text{IN}}$	9-36	V(DC)
Output Voltage 1	$V_{\text{OUT1}}$	15	V(DC)
Output Current 1	$I_{\text{OUT1}}$	400	mA
Switching Frequency	$f_{\text{switch}}$	330	kHz

Input: N2

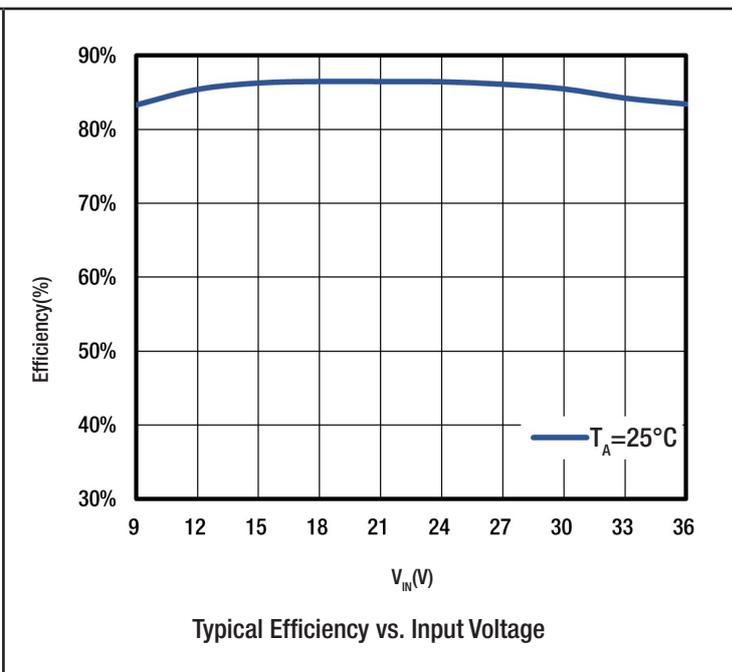
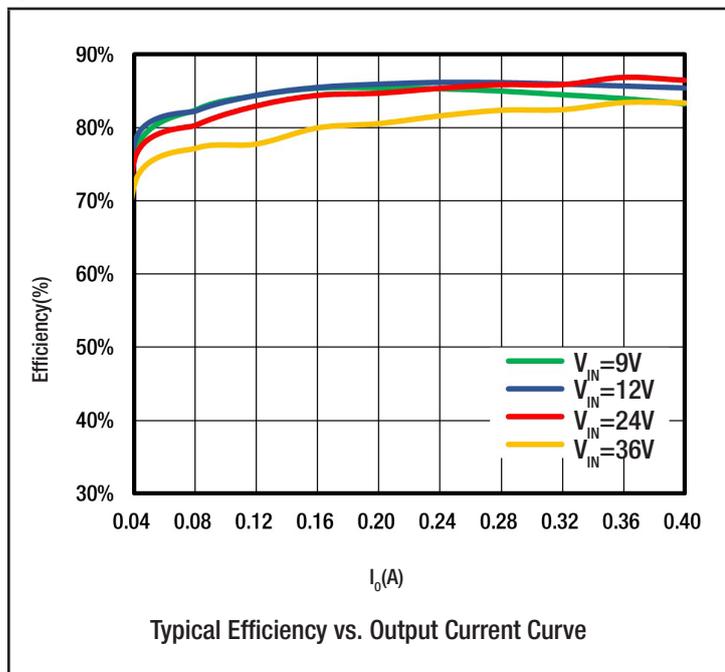
Output 1: N1/N4

Table and graph show a typical application. Values may vary by application.

### REFERENCE CIRCUIT DIAGRAM

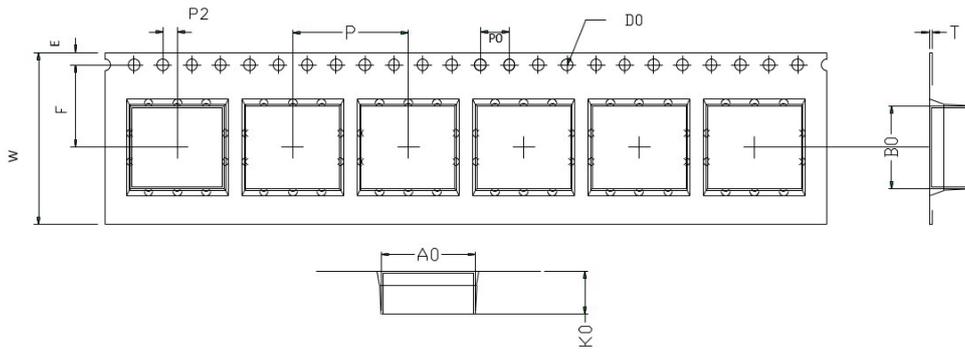


Typical Curve:

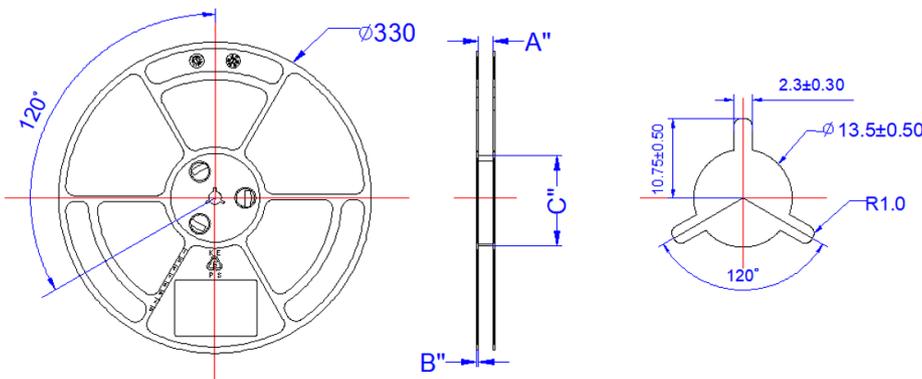
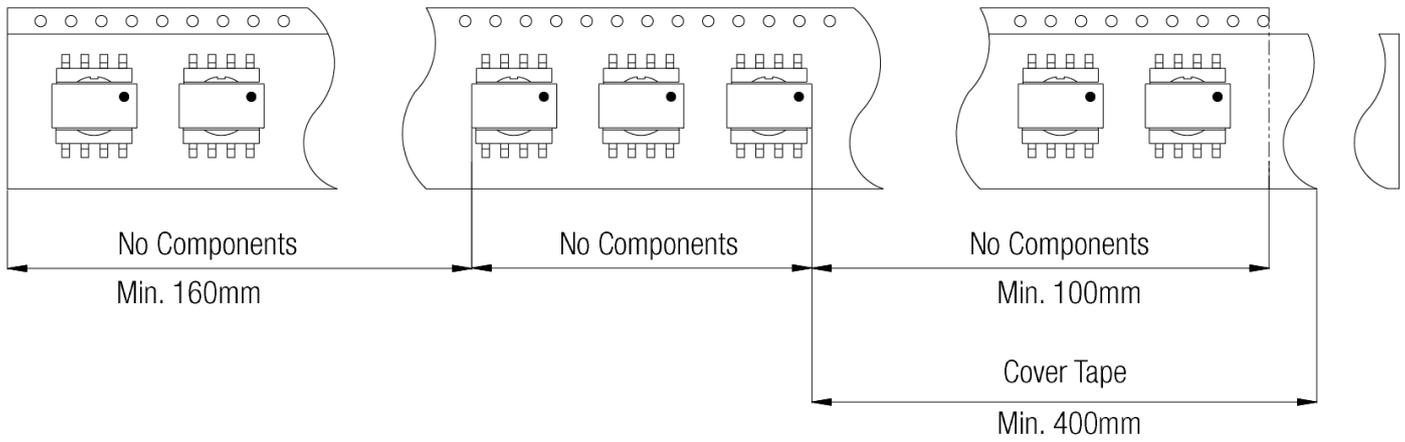


### PACKAGING SPECIFICATION - TAPE [mm]

ITRM	W	A0	B0	K0	K1	P	F	E	D0	D1	P0	P2	T
DIM	24.00	11.50	13.10	6.10	--	16.00	11.50	1.75	1.50	--	4.00	2.00	0.40
TOLE	+0.30 -0.30	+0.15 -0.15	+0.15 -0.15	+0.10 -0.10	+0.10 -0.10	+0.10 -0.10	+0.10 -0.10	+0.10 -0.10	+0.10 -0.00	+0.10 -0.00	+0.10 -0.10	+0.15 -0.15	+0.05 -0.05

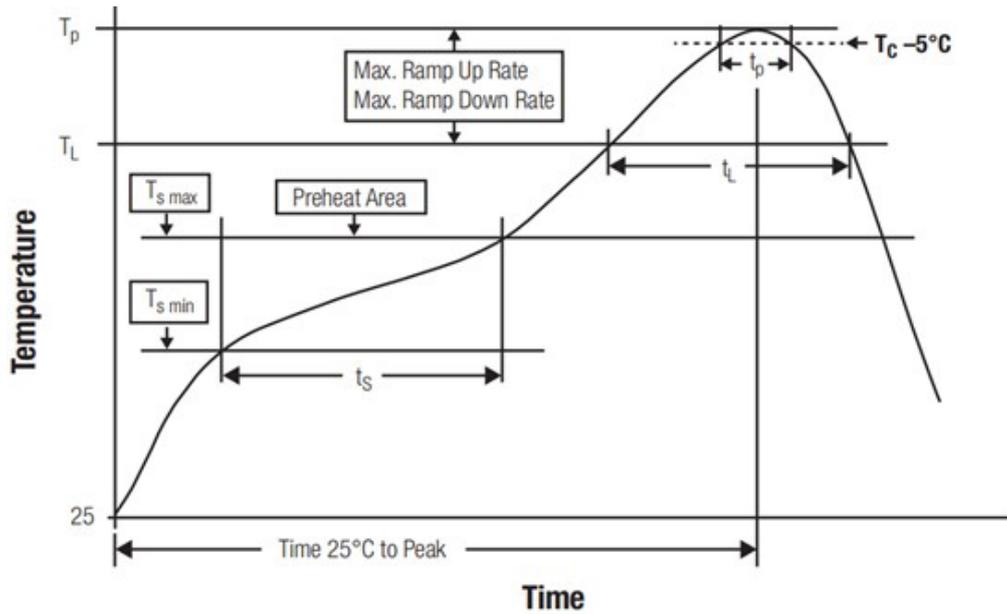


### Reel [mm]



SPEC	16	24	32	44	56
DIM A" ± 0.5	16.5	24.5	32.5	44.5	56.5
DIM B" ± 0.3	2.10	2.10	2.10	2.10	2.10
DIM C" ± 0.5	100	100	100	100	100

**CLASSIFICATION REFLOW PROFILE FOR SMT COMPONENTS**



Profile Feature		Value
Preheat Temperature Min	$T_{s\ min}$	150°C
Preheat Temperature Max	$T_{s\ max}$	200°C
Preheat Time $t_s$ from $T_{s\ min}$ to $T_{s\ max}$	$t_s$	100 seconds
Ramp-up Rate ( $T_L$ to $T_p$ )		3°C/second max.
Liquidous Temperature	$T_L$	217°C
Time $t_L$ maintained above $T_L$	$t_L$	100 seconds
Peak package body temperature	$T_p$	$T_p \leq T_c$ , see Table below
Time within 5°C of actual peak temperature	$t_p$	30 seconds
Ramp-down Rate ( $T_p$ to $T_L$ )		6°C/second max.
Time 25°C to peak temperature		5 minutes max.

Refer to IPC/JEDEC J-STD-020F

**PACKAGE CLASSIFICATION REFLOW TEMPERATURE ( $T_p$ )**

Properties	Volume mm <sup>3</sup> <350	Volume mm <sup>3</sup> 350-2000	Volume mm <sup>3</sup> >2000
PB-Free Assembly/Package Thickness < 1.6 mm	260 °C	260 °C	260 °C
PB-Free Assembly/Package Thickness 1.6 mm - 2.5 mm	260 °C	250 °C	245 °C
PB-Free Assembly/Package Thickness > 2.5 mm	250 °C	245 °C	245 °C

Refer to IPC/JEDEC J-STD-020F

## ORDER INFORMATION

Order Code	Marking Code*	Weight (g/pcs)	Package Type	Quantity (pcs/Reel)
RBE-014-UBCS-R	RBE-014	1.40g	Tape & Reel	500pcs

\*Marking Code

RBE014—— Product Code

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