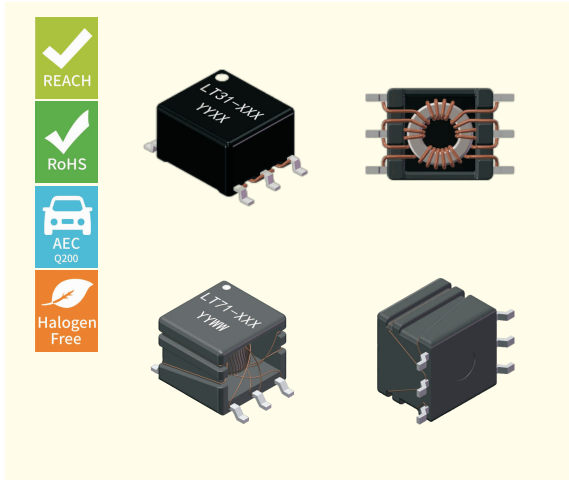


# PUSH PULL TRANSFORMER SERIES-LT SERIES

## 推挽变压器-LT系列



### Features 产品特点

- Small size & Compact design  
小封装紧凑设计
- Optimized design to achieve high isolation  
最优化设计获得高隔离
- Functional or Reinforced insulation  
功能绝缘或加强绝缘
- Complaint with UL62368 standard  
符合UL62368规范
- Operating temperature range -40°C~125°C(Including self - temperature rise)  
工作温度范围-40°C~125°C(含自温升)
- AEC-Q200 qualified  
通过AEC-Q200认证

### Applications 产品应用

- Battery Management Systems(BMS)  
电池管理系统(BMS)
- Isolated gate driver  
门级驱动
- Isolated interface power supply for CAN, RS-485/422/232, SPI, I2C  
CAN, RS-485/422/232, SPI, I2C, 接口隔离电源
- TMS(Thermal Mangement System) for EV cars  
新能源汽车热管理系统

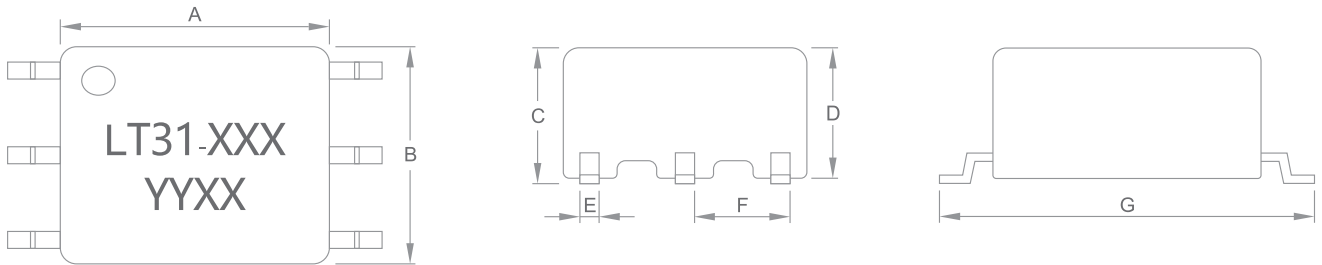
### Products 产品列表

P/N	Turns Ratio	V·μs	Insolation	Isolation(Vrms)	Dimensions(mm)	Application
LT31-111	1:1.1	11	Functional	2500	6.73x10.05x4.19	5V → 5V
LT31-113	1:1.3					3.3V → 3.3V
						5V → 5V
						3.3V → 3.3V
						5V → 5V
						3.3V → 5V
LT31-117	1:1.7	5V → 12V				
LT31-120	1:2.0	3.3V → 5V				
LT31-125	1:2.5	5V → 12V				
LT41-111	1:1.1	8.6	Functional	2500	8.3x12.6x4.1	3.3V → 3.3V
LT41-113	1.3:1	10.8				5V → 5V
LT71-111	1:1.1	11	Reinforced	5000	9.14x12.7x7.37	5V → 3.3V
						3.3V → 3.3V
						5V → 5V
						3.3V → 3.3V
LT71-113	1.3:1	11	Reinforced	5000	9.14x12.7x7.37	5V → 5V
	1.3:1					5V → 3.3V
	1:1.3					5V → 3.3V
	1:1.3					3.3V → 3.3V
LT71-117	1:1.7	11	Reinforced	5000	9.14x12.7x7.37	5V → 5V
						3.3V → 5V
LT71-120	1:2.0	11	Reinforced	5000	9.14x12.7x7.37	3.3V → 5V
LT71-137	1:3.7	11	Reinforced	5000	9.14x12.7x7.37	5V → 18V

**Product Identification**  
 产品标识

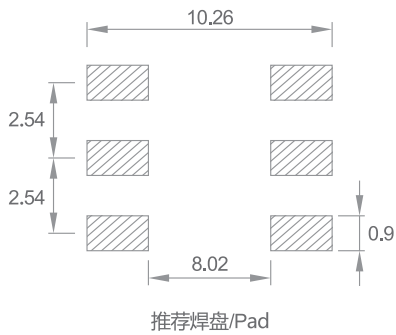


**Shape and Dimensions (Unit:mm)**  
 形状和尺寸(单位:毫米)

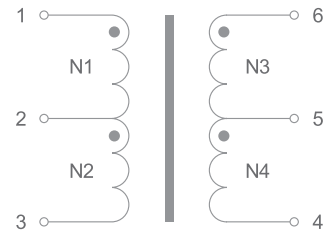


Series	A	B	C <sub>Max</sub>	D	E	F	G <sub>Max</sub>
LT31	7.1±0.2	6.55±0.2	4.2	3.75±0.2	0.60	2.54	10.2

**Recommend Land Pattern(Unit:mm)**  
 推荐焊盘尺寸(单位:毫米)



**Schematic**  
 原理图



## LT31 Electrical Characteristics

LT31 电气特性

Part Number	Inductance (μH)	leakage Inductance(μH)	Coupling Cap.(pF)	V·μs	DCR (Ω)		Turn Ratio	Insulation Voltage
	1-3	1-3(short6-4)	1-6		1-3	6-4	1-3:6-4	1-3/6-4
	10 KHz/0.1 V	10 KHz/0.1 V	10 KHz/0.01 V					
LT31-111	475 Min.	1.0 Max.	15.0 Typ.	11	0.31 Max.	0.31 Max.	1:1.1	2.5 KVac
LT31-113	475 Min.	1.0 Max.	12.5 Typ.	11	0.31 Max.	0.37 Max.	1:1.3	2.5 KVac
LT31-117	475 Min.	1.0 Max.	17.5 Typ.	11	0.35 Max.	0.50 Max.	1:1.7	2.5 KVac
LT31-120	475 Min.	1.0 Max.	17.5 Typ.	11	0.35 Max.	0.57 Max.	1:2	2.5 KVac
LT31-125	330 Min.	1.0 Max.	15.5 Typ.	8.6	0.24 Max.	0.57 Max.	1:2.5	2.5 KVac

## Typical Application

典型应用

Part Number	Input Voltage(V)	Output Voltage(V)	Output Current(mA)	LDO
LT31-111	5	5	350	无
LT31-113	5	5	350	有
LT31-117	3.3	5	350	无
LT31-120	3.3	5	350	有
LT31-125	5	12	250	无

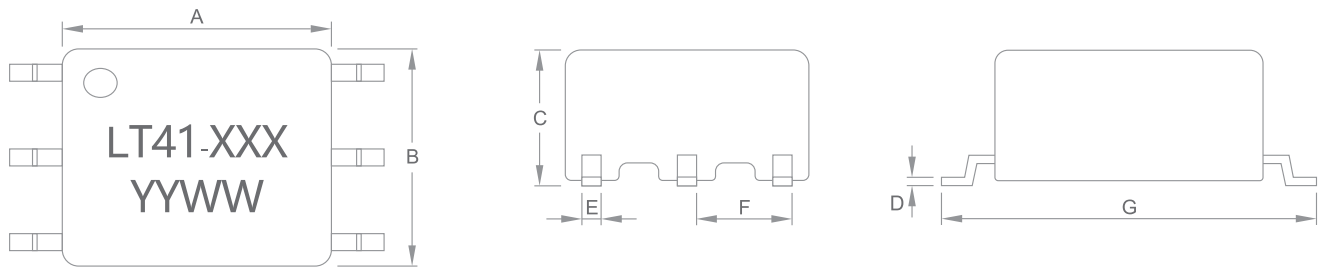
## Notes

- I<sub>rms</sub>:DC current that will cause the temperature rise ( $\Delta T \leq 40^\circ\text{C}$ ) from 25°C ambient  
 温升电流: 使产品温度上升40°C时所加载的直流电流值 (环境温度25°C)

Product Identification  
产品标识

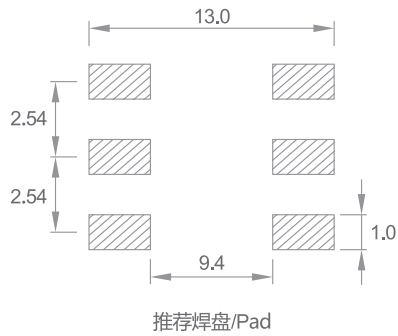


Shape and Dimensions (Unit:mm)  
形状和尺寸(单位:毫米)

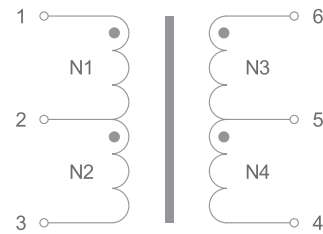


Series	A	B	C <sub>Max</sub>	D	E	F	G <sub>Max</sub>
LT41	9.2±0.2	8.0±0.2	4.1	0.3±0.1	0.50	2.54	12.6

Recommend Land Pattern(Unit:mm)  
推荐焊盘尺寸(单位:毫米)



Schematic  
原理图



## LT41 Electrical Characteristics

LT41 电气特性

Part Number	Inductance (μH)	leakage Inductance(μH)	Coupling Cap.(pF)	V·μs	DCR (Ω)		Turn Ratio	Insulation Voltage
	1-3	1-3(short6-4)	1-6		1-3	6-4	1-3:6-4	1-3/6-4
	10 KHz/0.1 V	10 KHz/0.1 V	10 KHz/0.01 V					
LT41-111	72 Min.	1.0 Max.	10.5 Typ.	8.6	0.09 Max.	0.09 Max.	1:1.1	2.5 KVac
LT41-113	94 Min.	1.0 Max.	10.5 Typ.	10.6	0.10 Max.	0.08 Max.	1.3:1	2.5 KVac

## Typical Application

典型应用

Part Number	Input Voltage(V)	Output Voltage(V)	Output Current(mA)	LDO
LT41-111	5	5	1000	无
LT41-113	5	3.3	1000	无

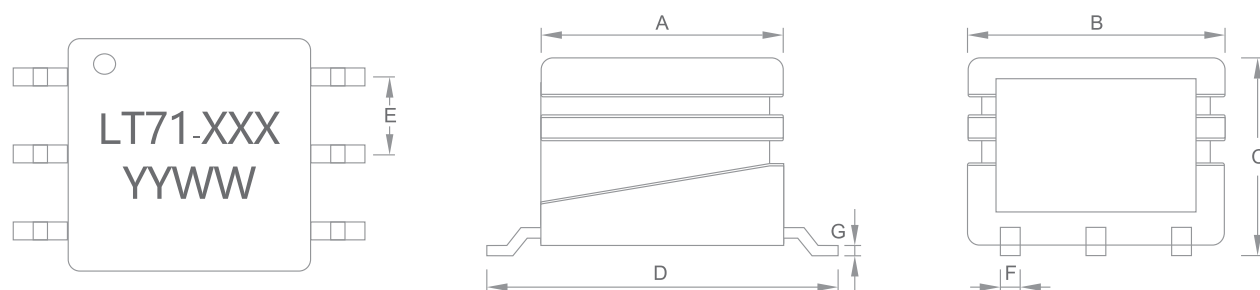
## Notes

- Irms:DC current that will cause the temperature rise ( $\Delta T \leq 40^\circ\text{C}$ ) from  $25^\circ\text{C}$  ambient  
温升电流: 使产品温度上升 $40^\circ\text{C}$ 时所加载的直流电流值 (环境温度 $25^\circ\text{C}$ )

Product Identification  
产品标识

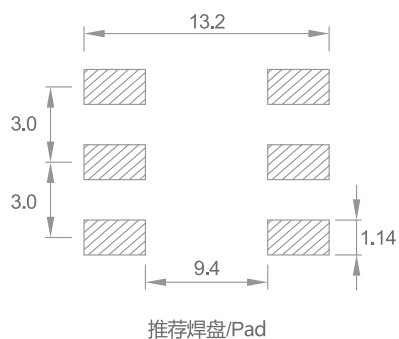


Shape and Dimensions (Unit:mm)  
形状和尺寸(单位:毫米)

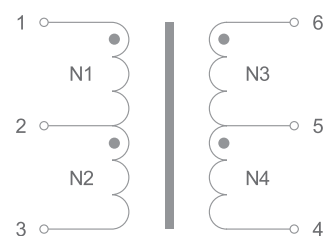


Series	A	B	C	D	E	F	G
LT71	8.6±0.3	9.0±0.3	7.3±0.3	12.0±0.5	3.0±0.3	0.7	0.4

Recommend Land Pattern(Unit:mm)  
推荐焊盘尺寸(单位:毫米)



Schematic  
原理图



## LT71 Electrical Characteristics

LT71 电气特性

Part Number	Inductance (μH)	leakage Inductance(μH)	Coupling Cap.(pF)	V·μs	DCR (Ω)		Turn Ratio	Insulation Voltage
	1-3	1-3(short6-4)	1-6		1-3	6-4	1-3:6-4	1-3/6-4
	10 KHz/0.1 V	10 KHz/0.1 V	10 KHz/0.01 V					
LT71-111	340 Min.	1.0 Max.	5.25 Typ.	10	0.42 Max.	0.34Max.	1:1.1	5.0 KVac
LT71-113	340 Min.	1.0 Max.	4.75 Typ.	10	0.35Max.	0.33 Max.	1:1.3	5.0 KVac
LT71-117	340 Min.	1.0 Max.	5.5 Typ.	10	0.43Max.	0.49Max.	1:1.7	5.0 KVac
LT71-120	340 Min.	1.0 Max.	5.5 Typ.	10	0.44 Max.	0.59Max.	1:2	5.0 KVac
LT71-137	500 Min.	1.0 Max.	10.0 Typ	41	0.5 Max.	1.3Max.	1:3.7	5.0 KVac

## Typical Application

典型应用

Part Number	Input Voltage(V)	Output Voltage(V)	Output Current(mA)	LDO
LT71-111	5	5	150	无
LT71-113	5	5	150	有
LT71-117	3.3	5	150	无
LT71-120	3.3	5	150	有
LT71-137	5	18	50	无

## Notes

- Irms:DC current that will cause the temperature rise ( $\Delta T \leq 40^\circ\text{C}$ ) from  $25^\circ\text{C}$  ambient  
温升电流: 使产品温度上升 $40^\circ\text{C}$ 时所加载的直流电流值 (环境温度 $25^\circ\text{C}$ )