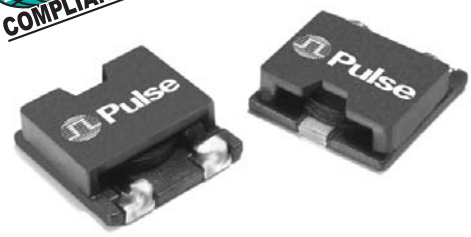
SMT POWER INDUCTORS
Flat Coils - PG0006 and PG0138 Series

Pulse® A TECHNITROL COMPANY

RoHS COMPLIANT

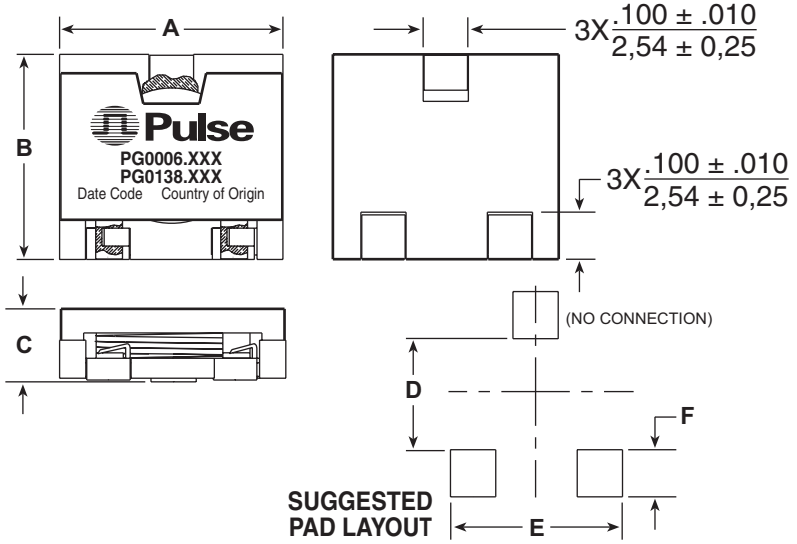


- **Height:** 6.0mm Max (PG0006) - 4.8mm Max (PG0138)
- **Footprint:** 13.4mm x 13.3mm (PG0006)
  13.0mm x 12.8mm (PG0138)
- **Current Rating:** up to 25ADC
- **Inductance Range** 0.50µH to 5.0µH

Electrical Specifications @ 25°C — Operating Temperature -40°C to +130°C [1]

Part[7,8] Number	Inductance[2] @Irated (µH TYP)	Irated[3] (A)	DCR (mΩ) TYP	DCR (mΩ) MAX	Inductance @0ADC (µH ±20%)	Saturation[4] Current ISAT (A)	Heating[5] Current IDC (A)
PG0006 SERIES							
PG0006.601	0.50	25	0.6	0.75	0.60	23	25
PG0006.102	0.90	20	1.4	1.75	1.0	20	23
PG0006.212	1.9	14	3.0	3.6	2.1	14	18
PG0006.312	2.8	12	7.0	7.5	3.1	12	14
PG0006.422	3.8	10	7.0	7.5	4.2	10	14
PG0006.462	4.2	9.0	9.8	10.4	4.6	9	12
PG0006.552	5.0	8.0	11.8	12.4	5.5	8	9.3
PG0138 SERIES							
PG0138.601	0.54	23	1.40	1.75	0.60	28.3	23
PG0138.102	0.90	18	3.0	3.6	1.0	22.8	18
PG0138.222	1.87	14	7.0	7.5	2.2	15.5	14
PG0138.332	2.64	12	9.8	10.4	3.3	12.2	12
PG0138.472	3.95	9.3	11.8	12.4	4.7	10.2	9.3
PG0138.552	4.40	8.2	11.8	12.4	5.5	8.2	9.3

Mechanical



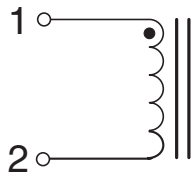
Dim.	PG0006	PG0138
A	.528/13,40 MAX	.504/12,80 MAX
B	.523/13,28 MAX	.512/13,00 MAX
C	.236/6,00 MAX	.193/4,90 MAX
D	.260/6,60 ±.005/0,12	.260/6,60 ±.005/0,12
E	.417/10,60 ±.005/0,12	.425/10,80 ±.005/0,12
F	3x.146/3,70 ±.005/0,12	3x.146/3,70 ±.005/0,12
G	.787/20,00	.630/16,00
H	.945/24,00	.945/24,00
I	.272/6,91	.232/5,90

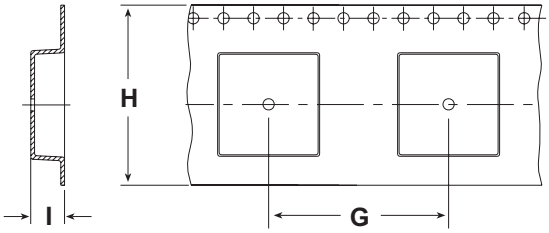
	PG0006	PG0138
Weight	3.0 grams	2.4 grams
Tape & Reel	340/reel	600/reel

Dimensions: Inches / mm

Unless otherwise specified, all tolerances are ± .010 / 0,25

Schematic



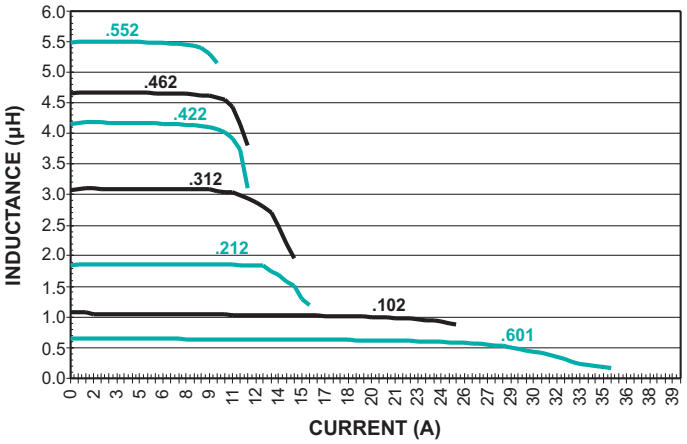


TAPE & REEL LAYOUT

Notes from Tables

1. The temperature of the component (ambient plus temperature rise) must be within the specified operating temperature range.
2. Inductance at Irated is a typical inductance value for the component taken at rated current.
3. The rated current listed is the lower of the saturation current @ 25°C or the heating current.
4. The saturation current, I_{SAT}, is the current at which the component inductance drops by 10% typical (20% typical for **PG0138.XXX**) at an ambient temperature of 25°C. This current is determined by placing the component in the specified ambient environment and applying a short duration pulse current (to eliminate self-heating effects) to the component.
5. The heating current, I_{DC}, is the DC current required to raise the component temperature by approximately 40°C. The heating current is determined by mounting the component on a typical PCB and applying current for 30 minutes. The temperature is measured by placing the thermocouple on top of the unit under test. Take note that the component's performance varies depending on the system condition. It is suggested that the component be tested at the system level, to verify the temperature rise of the component during system operation.
6. Unless otherwise specified, all testing is made at 100kHz, 0.25V_{AC}.
7. Optional Tape & Reel packaging can be ordered by adding a "**T**" suffix to the part number (i.e. PG0006.102 becomes PG0006.102**T**). Pulse complies to industry standard tape and reel specification EIA481.
8. To order RoHS compliant part, add the suffix "**NL**" to the part number (i.e. PG0006 becomes PG0006**NL** and PG0006T becomes PG0006**NL**T).

PG0006 TYPICAL INDUCTANCE VS. DC BIAS



PG0138 TYPICAL INDUCTANCE VS. DC BIAS