

SMT POWER INDUCTORS

Wire Wound
Ruggedized



- ⊗ Current Rating: Over 22Apk
- ⊗ Finish is Tin/Lead (Sn63/Pb37)
- ⊗ Moisture Sensitivity Level: 1
- ⊗ Max Reflow Temperature: 235°C

Electrical Specifications @ 25 °C – Operating Temperature – 55 °C to +130 °C¹

Part Number	Inductance @ADC (μH±10%)	Inductance @Irated (μH TYP)	Irated ¹ (ADC)	DCR (mΩ ±10%)	Saturation ² Current Isat (A TYP)		Heating Current IDC (A TYP)	Core Loss Factor K2
					25°C	100°C		
PL2058	10.2	10.2	12.5	5.8	16	15	12.5	206

Notes:

1. The rated current as listed is either the saturation current or the heating current depending on which value is lower.
2. The saturation current is the typical current which causes the inductance to drop by 20% at the stated ambient temperatures (25°C and 100°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.
3. The heating current is the DC current which causes the part temperature to increase by approximately 40°C.
4. In high volt*time applications, additional heating in the component core losses in the inductor which may necessitate derating the current in order to limit the temperature rise of the component. To determine the approximate total losses (or temperature rise) for a given application, the core loss and temperature rise formula can be used:

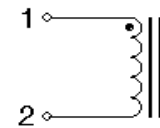
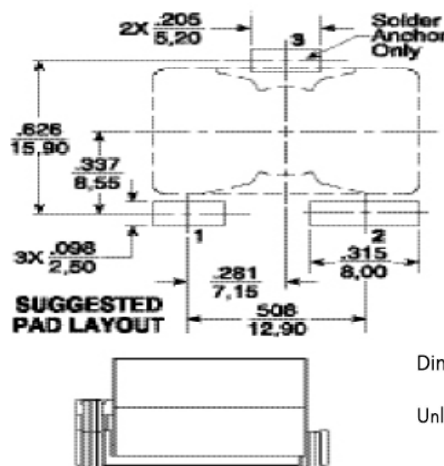
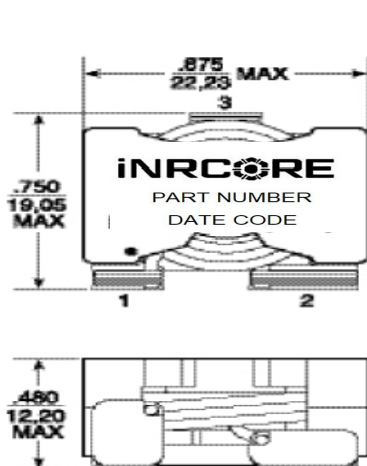
$$\Delta B \text{ (Gauss)} = K2 * \Delta I$$

$$\text{Core Loss (W)} = 1.5E-13 * (\text{Freq_kHz})^{1.63} * \Delta B^{2.62}$$
5. The temperature of the component (ambient plus temperature rise) must be within the stated operating temperature range.
6. RoHS compliant version available (add suffix NL to the part number).

Mechanical

Electrical Schematic

PL2058

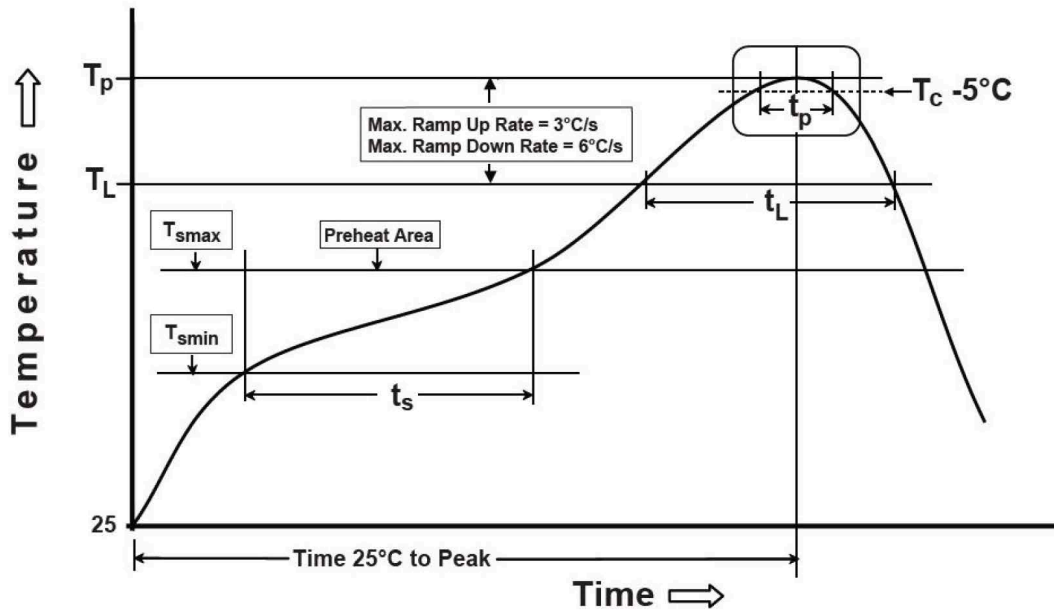


Dimensions: Inches
mm

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



Tin/Lead Recommended Reflow Profile (Based on J-STD-020D)



T_{SMIN} (°C)	T_{SMAX} (°C)	T_L (°C)	T_P (°C MAX)	t_s (s)	t_L (s)	t_p (s MAX)	Ramp-up rate (T_L to T_P)	Ramp-down rate (T_P to T_L)	Time 25°C to peak temperature (s MAX)
100	150	183	235	60-120	60-150	20	3°C/s MAX	6°C/s MAX	360

Notes:

1. All temperatures measured on the package leads.
2. Maximum times of reflow cycle: 2.

For More Information

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