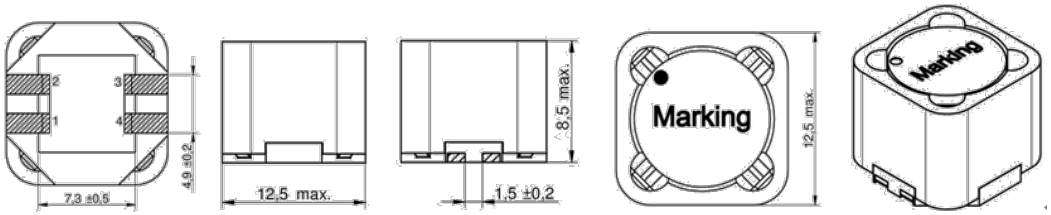
PIVOTELEC

# PRODUCT SPECIFICATIONS

**Part Number**: PVT-MDCDH1280-150M&221M

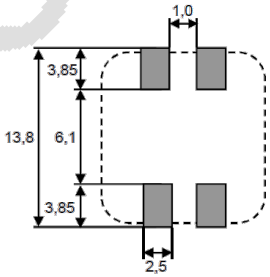
**Description**: SMD Shielded Coupled Inductor

## 1. Shape & Dimensions (mm)

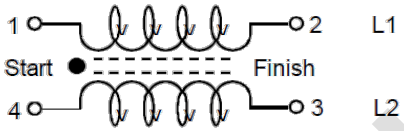



| Reference on Drawing | Description |
|---|---|
| - | Start of winding |
| Marking | (150) Inductance code |

## 2. Recommended Land Pattern (mm)




## 3. Electrical Properties




| Part Number | Inductance L1, L2 (uH) | Inductance Tolerance | D.C.R. (Max Ω) @ 25°C | Saturation Current (Typ A) | Rated Current (Max A) | Rated Voltage $U_{DC}$ (Max V) |
|---|---|---|---|---|---|---|
| PVT-MDCDH1280-150M | 15 | ± 20% | 0.055 | 6.1 | 3.3 | 80 |
| PVT-MDCDH1280-221M | 220 | ± 20% | 0.58 | 1.6 | 0.91 | 80 |

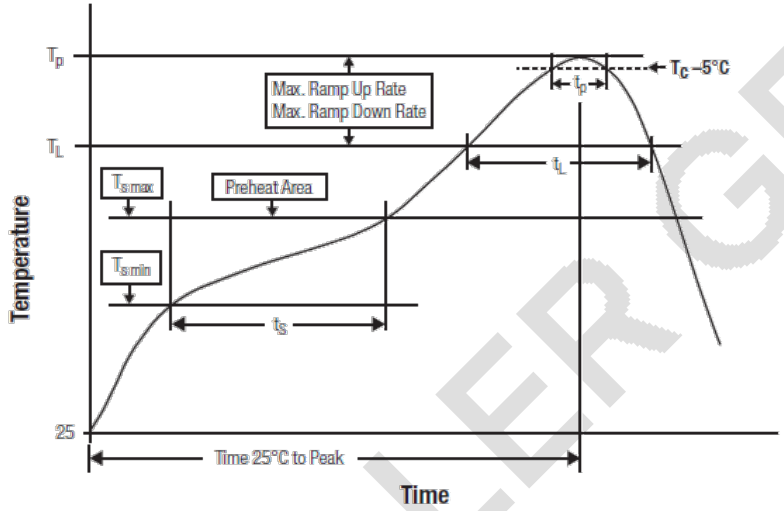
**Remarks:**

A. It is recommended that the temperature of the part does not exceed 125°C under worst case operating conditions.
Operating Temperature: -40°C to +125°C
Storage Temperature (on tape & reel): -20°C to +40°C; 75% RH max.

B. Inductance: 1.5uH~220uH @ 100KHz/5mA
Idc1(Isat): 1.6A~18A Typ. DC current that will cause L0 to drop approximately 10%
Idc2(Ir): 0.91A~6.25A Max. DC current that will cause an approximate ΔT of 40°C
DC Resistance: 0.015Ω~0.58Ω Max.
Self-Resonant Frequency: 2.8 MHz~75 MHz Typ

*(continued)*

## 4. Recommended Reflow Condition




| 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** | $t_s$ | 60-120 seconds |
| **Ramp-up Rate ($T_l$ to $T_p$)** | | 3°C/second max. |
| **Liquidous Temperature** | $T_l$ | 217°C |
| **Time $t_l$ Maintained above $T_L$** | $t_l$ | 60-150 seconds |
| **Peak Package Body Temperature** | $T_p$ | 260°C |
| **Time within 5°C of Actual Peak Temperature** | $t_p$ | 20-30 seconds |
| **Ramp-Down Rate ($T_L$ to $T_P$)** | | 6°C/second max. |
| **Time 25°C to Peak Temperature** | | 8 minutes max. |