Part Number: PVT-MCDCDH1245/1260/1280/1210

Description: SMD Shielded Power Inductors

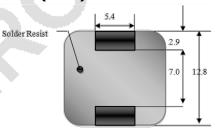
1. Shape & Dimensions (mm) Α

S o

Start of Winding	•
Marking	680 (Inductance Code)
	Code)

└──ŁPUXY	EPOXY			
Item	A	В	С	D
PVT-MDCDH-1245	12±0.5	12±0.5	4.5 Max	5.0 REF
PVT-MDCDH-1260	12±0.5	12±0.5	6 Max	5.0 REF
PVT-MDCDH-1280	12±0.5	12±0.5	8 Max	5.0 REF
PVT-MDCDH-1210	12±0.5	12±0.5	10 Max	5.0 REF

2. Recommended Land Pattern (mm)



3. Electrical Properties

	Part Number	Inductance L (uH)	Inductanc e Tolerance	D.C.R. (Max mΩ) @ 25°C	Saturation Current (Typ A)	Rated Current (Max A)
	PVT-MDCDH1245-4R7N	4.7	±30%	16	6.3	5.2
	PVT-MDCDH1245-221M	220	±20%	480	1	0.95
1 1	PVT-MDCDH1260-6R8M	6.8	±20%	22	6	5.6
	PVT-MDCDH1260-101M	100	±20%	160	1.7	1.53
	PVT-MDCDH1280-100M	10	±20%	22	6.6	6.2
	PVT-MDCDH1280-102M	1000	±20%	1820	0.7	0.6
	PVT-MDCDH1210-470M	47	±20%	60	4.5	3.8
	PVT-MDCDH1210-681M	680	±20%	825	1.3	1.1

(continued)

Rev. A – June 25, 2022

Page 1 of 3



Part Number: PVT-MCDCDH1245/1260/1280/1210

Description: SMD Shielded Coupled Inductor

Remarks:

- A. PVT-MDCDH1245:
 - a. Inductance: 0.6uH~220uH
 - b. Test Frequency: 1KHz~100KHz
 - c. Idc1 (Isat): 1A~19A Typ. DC current that will cause L0 to drop approximately 10%
 - d. Idc2 (Rated Current): 0.9A~9.5A Max. DC current that will cause an approximate ΔT of 40°C
 - e. DC Resistance: 5.5mo~480mo Max.
 - f. Self-Resonant Frequency: 4.7MHz~160MHz Typ.
- B. PVT-MDCDH1260:
 - a. Inductance: 1uH~1000uH @ 1KHz/0.25V
 - b. Idc1 (Isat): 0.5A~15.6A Typ. DC current that will cause L0 to drop approximately 10%
 - c. Idc2 (Rated Current): 0.43A~14A Max. DC current that will cause an approximate △T of 40°C
 - d. DC Resistance: 5mΩ~1530mΩ Max.
 - e. Self-Resonant Frequency: 1.9MHz~88MHz Typ.
- C. PVT-MDCDH1280:
 - a. Inductance: 0.47uH~1000uH @ 1KHz/0.25V
 - b. Idc1 (Isat): 0.7A~26.4A Typ. DC current that will cause L0 to drop approximately 10%
 - c. Idc2 (Rated Current): 0.6A~23.5A Max. DC current that will cause an approximate △T of 40°C
 - d. DC Resistance: 3m_Ω~1820m_Ω Max.
 - e. Self-Resonant Frequency: 1.8MHz~120MHz Typ.
- D. PVT-MDCDH1210:
 - a. Inductance: 1uH~2200uH @ 1KHz/0.25V
 - b. Idc1 (Isat): 0.75A~25A Typ. DC current that will cause L0 to drop approximately 10%
 - c. Idc2 (Rated Current): 0.53A~13A Max. DC current that will cause an approximate △T of 40°C
 - d. DC Resistance: 6mΩ~3750mΩ Max.
 - e. Self-Resonant Frequency: 0.66MHz~120MHz Typ
- E. 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.

(continued)

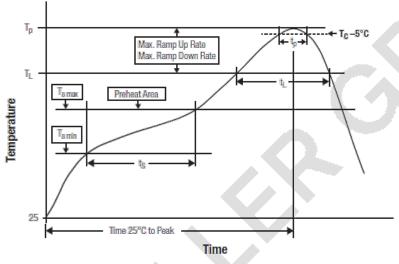




Part Number: PVT-MDCDH1280

Description: SMD Shielded Coupled Inductor

4. Recommended Reflow Condition



Profile Feature		Value
Preheat Temperature Min	T₅ min	150°C
Preheat Temperature Max	T₅ max	200°C
Preheat Time t_s from T_s Min to T_s Max	ts	60-120 seconds
Ramp-up Rate (T _I to T _P)		3°C/second max.
Liquidous Temperature	Τı	217°C
Time t₁ Maintained above T∟	t,	60-150 seconds
Peak Package Body Temperature	Tp	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.

Rev. A – June 25, 2022

