### SURFACE MOUNT SHIELDED POWER INDUCTOR SERIES SHC7685

#### FEATURES

- RoHS Compliant
- A great replacement for those bulky "through-hole" power inductors
- Well suited for use in ruggedized computers, high power appliances
- and digital lighting systems

# **ELECTRICAL SPECIFICATIONS**

# SPECIFICATIONS

- Inductance range	0.1uH to 0.2uH
- Test condition	0.25Vrms @ 200kHz
- Test equipment	Quadtech 1750 LCR meter

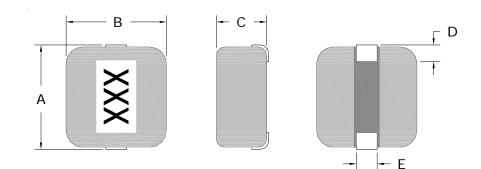
			Tol	DCR	Rated	Saturation
	Part Number	L(uH)	% <u>+</u>	(ohms)	Current (A)	Current (A)
				max	(Note 1)	(Note 2)
- 1						
	SHC7685-R10Y	0.10	30	0.0005	30	37
	SHC7685-R10Y SHC7685-R15Y	0.10 0.15	30 30	0.0005 0.0005	30 24	37 30

# **PHYSICAL SPECIFICATIONS**

- Operating temp.		-55°C to +125°C
-Core		Ferrite
- Packaging	T & R	900 pieces per reel
- Tape & reel spec.	Tape	16 mm embossed carrier
	Reel	330 mm dia

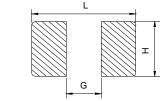
# **Dimensions in millimeters**

Length A	7.2 max
Width B	6.8 max
Height C	5.0 max
Terminal length D	$1.5 \pm 0.5$
Terminal width E	$2.5 \pm 0.5$



# Suggested PCB layout

G = 2.5
H = 4.5
L=7.5



1. Based on  $\Delta T$  approximately 40°C.

2. Based on  $\Delta L$  of 30% typical

All test data based on 25°C ambient. Part temperature (ambient+temp rise) must not exceed 125°C under worst case operating conditions. Circuit design, components, PCB trace size and thickness, airflow and other cooling provisions all effect the part temperature.