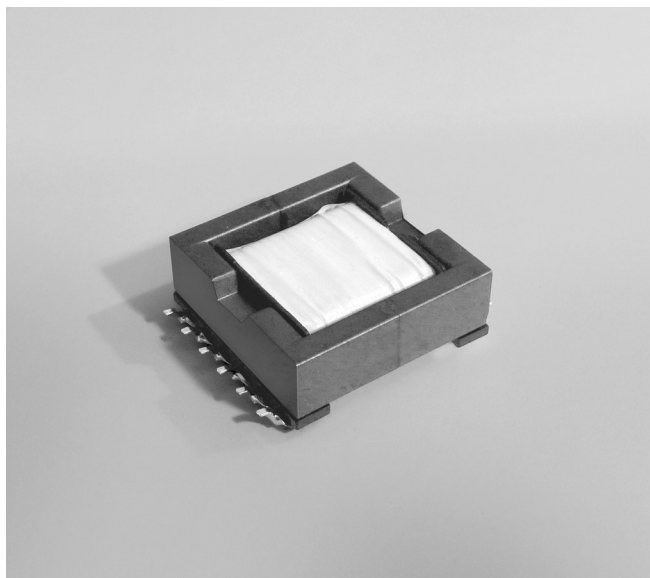


# SMT Power Inductors

For Texas Instruments  
SolarMagic Power Optimizer



- Developed for Texas Instruments SolarMagic™ Power Optimizer SM3320 series
- JA4487-AL is designed for 30 V to 100 V panels; JA4488-AL is designed for low voltage panels (<50 V)
- High current, low DCR, shielded power inductors
- Recessed board placement for a very low profile design

**Core material** Ferrite

**Terminations** RoHS compliant tin-silver over tin over nickel over phos bronze. Other terminations available at additional cost.

**Weight** 36.8 – 39.0 g

**Ambient temperature** –40°C to +125°C

**Storage temperature** Component: –40°C to +125°C.

Tray packaging: –40°C to +80°C

**Resistance to soldering heat** Max three 40 second reflows at +260°C, parts cooled to room temperature between cycles

**Moisture Sensitivity Level (MSL)** 1 (unlimited floor life at <30°C / 85% relative humidity)

**Failures in Time (FIT) / Mean Time Between Failures (MTBF)**

38 per billion hours / 26,315,789 hours, calculated per Telcordia SR-332

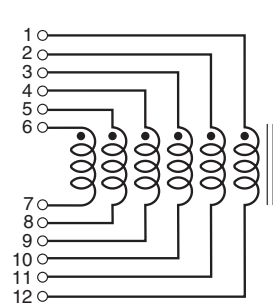
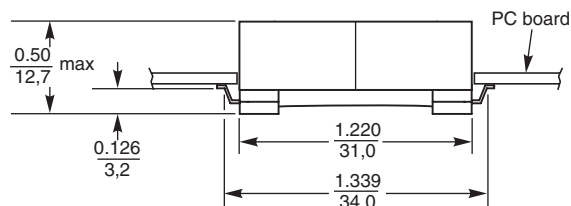
**Packaging** 24 per tray

**PCB washing** Tested with pure water or alcohol only. For other solvents, see Doc787\_PCB\_Washing.pdf

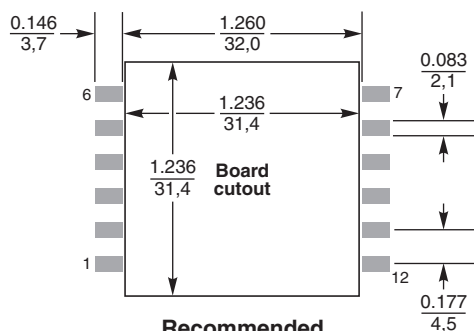
Part number	Inductance at 0 A <sup>1</sup> ±10% (µH)	Inductance at I <sub>pk</sub> <sup>2</sup> min (µH)	DCR max <sup>3</sup> (mOhms)	I <sub>pk</sub> <sup>2</sup> (A)	Irms (A) <sup>4</sup>	
					20°C rise	40°C rise
JA4487-AL	30	26	10.0	10.0	11.0	14.4
JA4488-AL	20	18	11.0	15.0	9.5	13.0

1. Inductance measured at 200 kHz, 1.0 Vrms, 0 Adc using an Agilent/HP 4263B impedance analyzer or equivalent.
2. Peak primary current drawn at minimum input voltage.
3. DCR is with all windings connected in parallel.
4. Current that causes the specified temperature rise from 25°C ambient. This information is for reference only and does not represent absolute maximum ratings
5. Electrical specifications at 25°C.

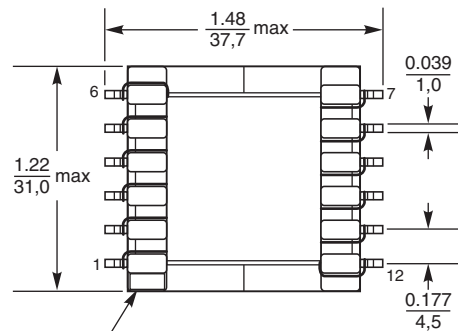
Refer to Doc 362 "Soldering Surface Mount Components" before soldering.



Windings to be connected in parallel on the PC board



**Recommended Land Pattern**  
(Viewed from underside of PC board)



White mark indicates pin 1  
Dimensions are in inches/mm

For lowest profile, these parts are designed to be mounted to the underside of the PC board.



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