

Würth Electronics Midcom Inc.
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August 12, 2014

Florian Mueller
Texas Instruments
Haggertystr. 1
Phase 4A
Freising , 85356
Germany

Dear Florian:

Enclosed are five samples of Würth Electronics Midcom part number 7508113417 Rev 01. This revision uses litz wire in order to help reduce AC resistive losses and improve temperature rise seen on Rev 00.

Please try these in your application and let me know how they perform. I can be reached directly at (605) 884-3558 or via email at landen.geerdes@we-online.com if you have any questions or concerns.

Sincerely,

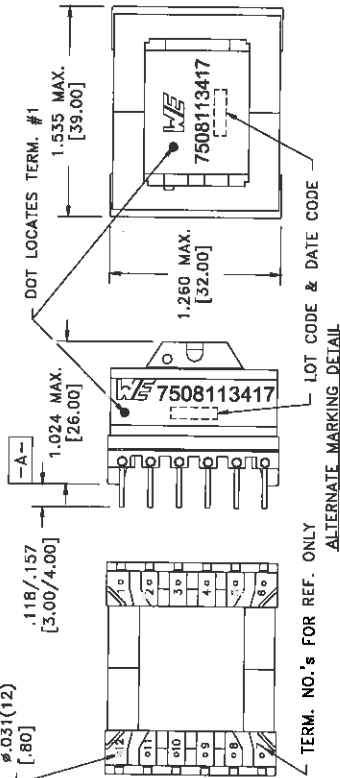
Landen Geerdes
Design Engineer

LJG/sae

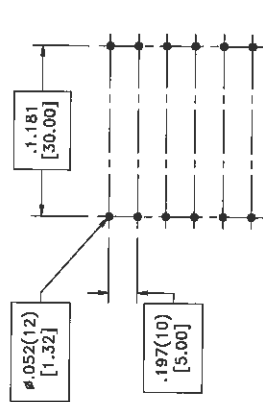
C: Toby Kangas, Inside Sales (INQ 39746)

CUSTOMER TERMINAL	RoHS	LEAD(Pb)-FREE
Sn 96%, Ag 4%	Yes	Yes

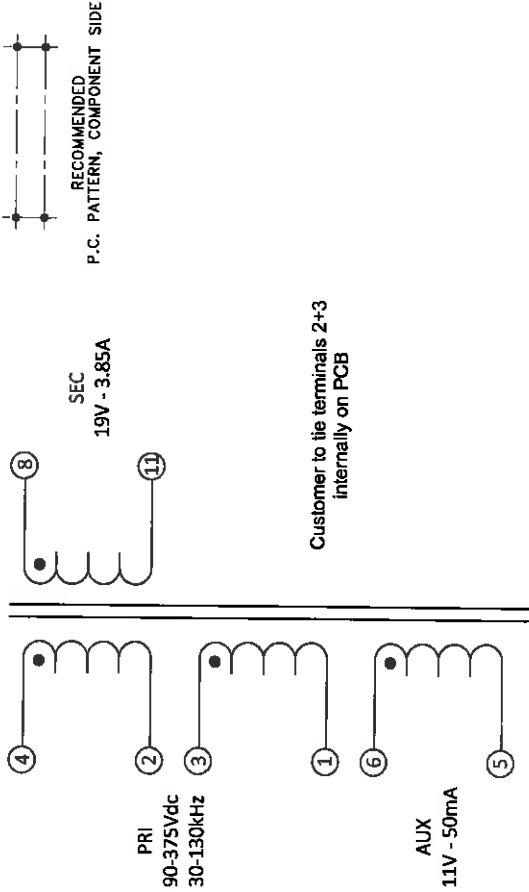
PART MUST INSERT FULLY TO SURFACE A IN RECOMMENDED GRID



TERM. NO.'s FOR REF. ONLY
ALTERNATE MARKING DETAIL



RECOMMENDED
P.C. PATTERN, COMPONENT SIDE



Customer to tie terminals 2+3 internally on PCB

ELECTRICAL SPECIFICATIONS @ 25° C unless otherwise noted:

PARAMETER	TEST CONDITIONS	VALUE
D.C. RESISTANCE	1-4 tie(2+3), @20°C	0.135 ohms ±10%
D.C. RESISTANCE	5-6 @20°C	0.080 ohms ±20%
D.C. RESISTANCE	8-11 @20°C	0.014 ohms ±20%
INDUCTANCE	1-4 tie(2+3), 10KHz, 100mV, 1s	140 µH ±10%
SATURATION CURRENT	1-4 20% rolloff from initial	9.1A
LEAKAGE INDUCTANCE	1-4 tie(2+3, 5+6, 8+11), 100KHz, 100mV, 1s	3.5µH typ., 6µH max.
DIELECTRIC	1-11 tie(2+3+5), 3750VAC, 1 second	3000VAC, 1 minute
DIELECTRIC	1-6 tie(2+3), 825VAC, 1 second	
TURNS RATIO	(4-2):(3-1)	1.05:1, ±1%
TURNS RATIO	tie(2+3):(4-1):(6-5)	5.57:1, ±1%
TURNS RATIO	tie(2+3):(4-1):(8-11)	3.25:1, ±1%

GENERAL SPECIFICATIONS:

OPERATING TEMPERATURE RANGE: -40°C to +125°C including temp rise.

Designed to comply with the following requirements as defined by IEC60950-1, EN60950-1, UL60950-1/CSA60950-1 and AS/NZS60950.1:

- Reinforced insulation for a primary circuit at a working voltage of 285Vrms, -100Vpeak, Overvoltage Category I.

Wire insulation & RoHS status not affected by wire color. Wire insulation color may vary depending on availability.

DFM	Packaging Specifications	Tolerances unless otherwise specified:
DATE	Method: Tray	Angles: ±1° Decimals: ±.005 [-.13]
ENG	PKG-0867	Fractions: ±1/64 Footprint: ±.001 [.03]
REV.	LJG 01	This drawing is dual dimensioned. Dimensions in brackets are in millimeters.
DATE	8/12/2014	

DRAWING TITLE

TRANSFORMER

PART NO.

7508113417

SPECIFICATION SHEET 1 OF 1

Würth Electronics Midcom Inc.

Sample Test Data



INQ# 39746		Sample Qty: 9		Date Code: 433		Part Number: 7508113417		Rev: 01		Date: 8/11/2014		Customer: TEXAS INSTRUMENTS	
Parameter	Weight	INDUCTANCE	Q	INDUCTANCE (POST)	Q	SATURATION CURRENT	LEAKAGE INDUCTANCE	D.C. RESISTANCE	D.C. RESISTANCE	D.C. RESISTANCE	D.C. RESISTANCE	D.C. RESISTANCE	D.C. RESISTANCE
PIN	-	1-4	1-4	1-4	1-4	1-4	1-4	1-3	2-4	1-4	5-6	8-11	Dielectric
Ties	-	(2+3)	(2+3)	(2+3)	(2+3)	(2+3, 5+6, 8+11)				(2+3)			1-11
Test Condition	-	10KHz, 100mV/Ls	10KHz, 100mV/Ls	10KHz, 100mV/Ls	10KHz, 100mV/Ls	10KHz, 100mV/Ls	100mV/Ls	20°C	20°C	20°C	20°C	20°C	(2+3+5)
Test Equipment	-	WK 3260A	WK 3260A	WK 3260A	WK 3260A	WK 3260A	WK 3260A	Valhalla 4176	Valhalla 4176	Valhalla 4176	Valhalla 4176	Valhalla 4176	3750VAC 1sec
Unit	grams	µH		µH		mA	µH	Ω	Ω	Ω	Ω	Ω	Hypot 7705
Upper Limit	-	154.00		154.00				0.084	0.060	0.132	0.078	0.019	500
Lower Limit	-	126.00		126.00				0.056	0.040	0.108	0.052	0.013	500
Max	51.788	142.9	51	143.260	50	9.200	3.6	0.079	0.057	0.138	0.080	0.014	340
Min	51.347	138.0	41	140.320	32	9.100	3.1	0.078	0.056	0.136	0.079	0.014	321
Sample No.													
59	51.449	141.32	50	141.70	50		3.33	0.0780	0.0563	0.137	0.0788	0.0136	340
60	51.520	140.34	44	140.90	38		3.35	0.0783	0.0565	0.137	0.0793	0.0136	321
61	51.788	142.34	48	143.14	49		3.44	0.0787	0.0569	0.138	0.0796	0.0138	331
62	51.623	141.64	47	142.04	48		3.33	0.0782	0.0565	0.137	0.0804	0.0138	337
63	51.347	140.28	41	141.06	32		3.57	0.0782	0.0561	0.136	0.0788	0.0136	333
Environment Condition	Room Temperature : 25 ± 5 C												
Relative Humidity: n/a													

Tested/Prepared By: LAC 8/12/14 Checked By: _____ Designed By: LJG Approved By: SGH 8/12/14

Würth Electronics Midcom Inc.

Sample Test Data



Parameter	Sample Qty: 9	Date Code: 433	Part Number: 7508113417	Rev: 01	Date: 8/11/2014	Customer: TEXAS INSTRUMENTS
PIN	1-6	(4-2):(3-1)	T/R	T/R	(4-1):(8-11)	
	(2+3)				(2+3)	
Test Condition	625VAC 1sec	10KHz, 1.0 V	10KHz, 1.0 V	10KHz, 1.0 V	10KHz, 1.0 V	
Test Equipment	Hypot 7705	WK 3260B	WK 3260B	WK 3260B	WK 3260B	
Unit	µA					
Upper Limit	500	960	181	311		
Lower Limit	500	941	178	305		
Max	27	.953	.180	.308		
Min	16	.953	.180	.308		
Sample No.						
59	19	.953	.180	.308		
60	18	.953	.180	.308		
61	18	.953	.180	.308		
62	27	.953	.180	.308		
63	17	.953	.180	.308		
Environment Condition	Room Temperature : 25 ± 5°C					
Relative Humidity: n/a						

Tested/Prepared By: LAC 8/12/2014 Checked By: _____ Designed By: LJG Approved By: JSG 8/12/14

Sheet 2 of 2