Half-Bridge Transformer

75PR8125

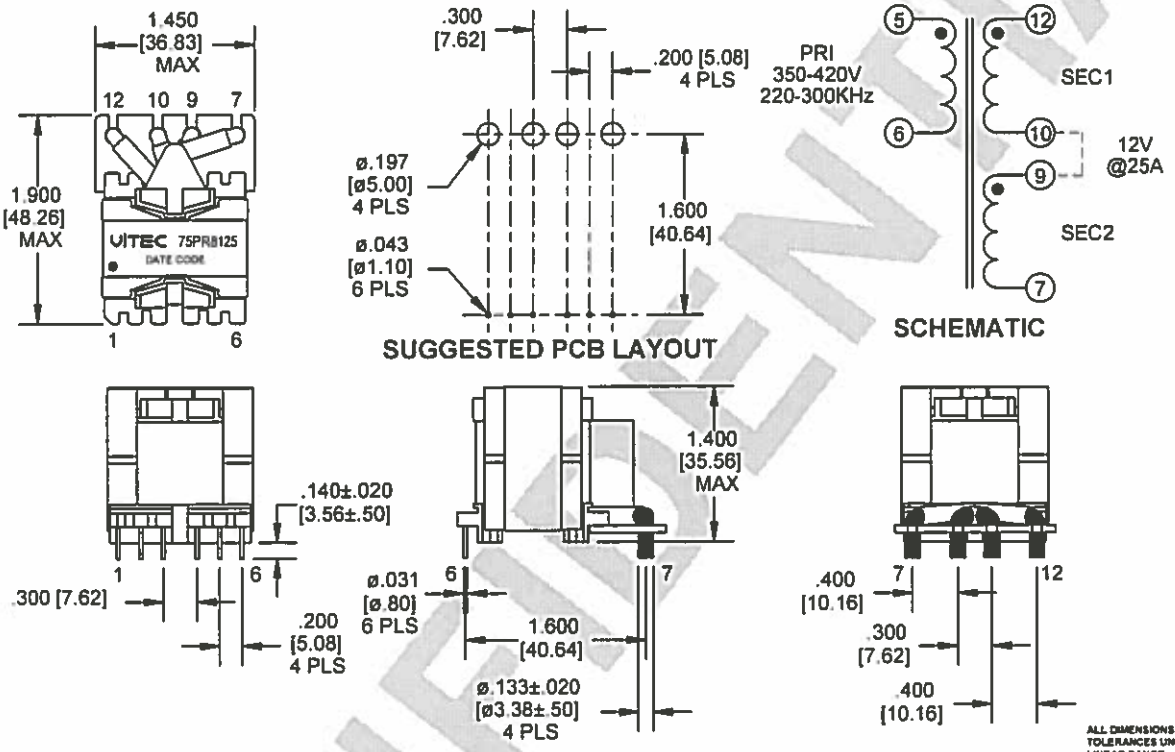
FEATURES

- Designed for Texas Instruments Inc.
- Design to work with C2000 Controllers.
- Topology: LLC Resonant Half-Bridge.
- Operating Temperature: -40°C to 125°C.
- Manufactured with UL Recognized Materials for 130°C (B) Temperature Class.
- Materials meet flammability requirements for UL94V-0.
- Reinforced Insulation per IEC 60950.
- Creepage distance (Pris-Sec): 11 mm minimum.
- Clearance distance (Pris-Sec): 11 mm minimum.
- RoHS Compliant Component.

RoHS

MECHANICAL

PRELIMINARY



ALL DIMENSIONS GIVEN IN INCHES [MILLIMETERS]
TOLERANCES UNLESS OTHERWISE SPECIFIED.

LINEAR RANGE:	TOLERANCE
0<DIM< .500[12.70]	± .004 [± .10]
.500[12.70]<=DIM<1.000[25.40]	± .008 [± .20]
1.000[25.40]<=DIM<2.000[50.80]	± .012 [± .30]
2.000[50.80]<=DIM<3.000[76.20]	± .016 [± .40]

ANGULAR: ± 1°

ELECTRICAL SPECIFICATIONS @ 25°C

TURNS RATIO: AT 100 KHz, 1 VRMS
(5-6) : (12-10) = 17.00 : 1 = 17.00 ±1% (16.83-17.17)
(5-6) : (9-7) = 17.00 : 1 = 17.00 ±1% (16.83-17.17)

OCL: AT 100 KHz, 0.100 VRMS
(5-6) = 149.2 ±3% uH (144.7-153.7 uH)

LL: AT 100 KHz, 1 VRMS
(5-6) = 3.20 ±15% uH (2.72-3.68 uH), SHORT (7-9-10-12)

DCR:
(5-6) = 0.115 OHMS MAX.
(12-10), (9-7) = 0.0013 OHMS MAX.

HIPOT: 50/60 Hz, 2 SECONDS MINIMUM
(5,6) TO (7,9,10,12) : 3750 VRMS
(7,9) TO (10,12) : 500 VRMS
(5,6,7,9,10,12) TO (CORE) : 2000 VRMS

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REF: AF5995, AF6076 FILE NAME: 75PR8125_122116

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VITEC

TEST REPORT

CUSTOMER:	VITEC PN:	REPORT #
TEXAS INSTRUMENTS INCORPORATED	75PR8125	13131
CUSTOMER PN:	TESTED BY:	DATE:
	ELSA	12/21/2016

Test Parameter	DCR	DCR	DCR		Hipot	Hipot	Hipot				
Test Conditions					3750VAC 2sec	500VAC 2sec	2000VAC 2sec				
Equipment Used	TH2512B	TH2512B	TH2512B								
Max Spec	0.115	0.0013	0.0013								
Min Spec											
Units	Ohms	Ohms	Ohms								
Test Leads/Pins	(5-6)	(12-10)	(9-7)		(5,6) TO (7,9,10,12)	(7,9) TO (10,12)	(windings) TO (core)				
27	0.105	0.0009	0.0011		PASSED	PASSED	PASSED				
28	0.105	0.0009	0.0011		PASSED	PASSED	PASSED				
29	0.105	0.0009	0.0011		PASSED	PASSED	PASSED				
30	0.105	0.0009	0.0011		PASSED	PASSED	PASSED				
Min	0.105	0.0009	0.0011								
Avg	0.105	0.0009	0.0011								
Max	0.105	0.0009	0.0011								
Stdev	0.000	0.0000	0.0000								
Cpk upp	66.500	24.0758	13.1667								
Cpk low											
Cpk	66.500	24.0758	13.1667								

NOTES:

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CUSTOMER:	VITEC PN:	REPORT #
TEXAS INSTRUMENTS INCORPORATED	75PR8125	13131
CUSTOMER PN:	TESTED BY:	DATE:
	ELSA	12/21/2016

Test Parameter	IND		LL		TR	TR					
Test Conditions	100 KHz, .10VRMS		100 KHz, 1.0VRMS		100 KHz, 1VRMS	100 KHz, 1VRMS					
Equipment Used	HP4263B		HP4263B		HP4263B	HP4263B					
Max Spec	153.7		3.68		17.17	17.17					
Min Spec	144.7		2.72		16.83	16.83					
Units	uH		uH								
Test Leads/Pins	(5-6)		(5-6) shrt (7, 9,10,12)		(5-6) TO (12-10)	(5-6) TO (9-7)					
27	148.10		2.84		17.00	16.99					
28	148.36		3.03		17.00	16.99					
29	147.88		2.88		17.00	16.99					
30	147.80		2.99		17.00	16.99					
Min	147.80		2.84		17.00	16.99					
Avg	148.04		2.94		17.00	16.99					
Max	148.36		3.03		17.00	16.99					
Stdev	0.25		0.09		0.00	0.00					
Cpk upp	7.52		2.79		1146.50	1173.17					
Cpk low	4.43		0.81		1120.17	1093.50					
Cpk	4.43		0.81		1120.17	1093.50					

NOTES: