## NOTES:

1. ROHS COMPLIANT
 RATING UL 94V-O OR BETTER.
2. HEADER: DAP (DIALLYL PHTHALATE) WITH FLAMMABILITY
3. STORAGE TEMPERATURE: $-20^{\circ} \mathrm{C}$ TO $+125^{\circ} \mathrm{C}$
4. COMPLIANCE TO J-STD:
A. J-STD-002: SOLDERABILITY AT $245^{\circ} \mathrm{C}$ REFLOW PROFILE
B. J-STD-020: LEVEL 3, NO MOISTURE SENSITIVE
C. J-STD-075: R7, $245^{\circ} \mathrm{C}$ MAXIMUM THROUGH REFLOW SOLDER

5. TO ORDER TAPE \& REEL PACKAGING ADD A "T" SUFFIX

TO THE PART NUMBER(i.e H1112NL BECOMES H1112NLT).


FINAL OUTLINE

[^0]| PRODUCT DESCRIPTION | TLA DRAWING | PS DRAWING | SHEET | PART NO. | DATASHEET REV. |
| :---: | :---: | :---: | :---: | :---: | :---: |
| MDL,SIN,100D,1:1,SM,TU | H1112NL-11 | PS-0023.001-D | 1 OF 3 | H1112NL | A |

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SCHEMATIC

ELECTRICAL CHARACTERISTICS AT $+25^{\circ} \mathrm{C}$ UNLESS OTHER SPECIFIED MEETS IEEE 802.3 SPECIFICATION

| PARAMETER | SPECIFICATIONS |  |  |
| :---: | :---: | :---: | :---: |
| OPERATING TEMP | $0^{\circ} \mathrm{C}-70^{\circ} \mathrm{C}$ |  |  |
| TURNS RATIO | $1: 1 \pm 2 \%$ |  |  |
| POLARITY | PER SCHEMATIC |  |  |
| INSERTION LOSS | 100 KHz | $1-125 \mathrm{MHz}$ |  |
|  | -1.2 dB MAX | $-0.2-0.002 * f{ }^{\wedge} 1.4 \mathrm{~dB}$ MAX |  |
| RETURN LOSS$\text { (Z OUT = } 100 \text { OHM } \pm 15 \% \text { ) }$ | . $1-30 \mathrm{MHz}$ | $30-60 \mathrm{MHz}$ | $60-80 \mathrm{MHz}$ |
|  | -16 dB MIN | $\begin{aligned} & -10+20 * \text { LOG }_{10} \\ & (\mathrm{f} / 60 \mathrm{MHz}) \mathrm{dB} \mathrm{MIN} \end{aligned}$ | -10 dB MIN |
| INDUCTANCE (OCL) <br> (MEDIA SIDE, $0^{\circ} \mathrm{C}-70^{\circ} \mathrm{C}$ ) | 350 uH MIN ( $\left.\begin{array}{l}\text { MEASURED AT } 100 \mathrm{KHz}, 100 \mathrm{mVRMS} \\ \text { AND WITH } 8 \mathrm{~mA} \text { DC } \\ \text { BIAS }\end{array}\right)$ |  |  |
| CROSSTALK, ADJACENTCHANNELS | 1 MHz | $10-100 \mathrm{MHz}$ |  |
|  | -50 dB MIN | $-50+17 * \mathrm{LOG}_{10}(\mathrm{f} / 10) \mathrm{dB}$ MIN |  |
| COMMON MODE REJECTION RATIO | 2 MHz | $30-200 \mathrm{MHz}$ |  |
|  | -50 dB MIN | $-15+20 * \mathrm{LOG}_{10}(\mathrm{f} / 200) \mathrm{dB}$ MIN |  |
| DC RESISTANCE <br> 1/2 WINDING | . 60 OHMS MAX |  |  |
| DC RESISTANCE IMBALANCE | $\pm .065$ OHMS MAX (CENTER TAP SYMMETRY) |  |  |
| INPUT - OUTPUT ISOLATION | 1500 VRMS MIN @ 60 SECONDS |  |  |

NOTE: f IS FREQUENCY IN MHz.
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| :---: | :---: | :---: | :---: | :---: | :---: |
| MDL,SIN,100D,1:1,SM,TU | H1112NL-11 | PS-0023.001-D | 2 OF 3 | H1112NL | A |

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DIMENSIONS ARE IN INCHES WITH THE FOLLOWING
TOLERANCES:
. $X X= \pm .01$
$. X X X= \pm .005$
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| PRODUCT DESCRIPTION | TLA DRAWING | PS DRAWING | SHEET | PART NO. | DATASHEET REV. |
| :---: | :---: | :---: | :---: | :---: | :---: |
| MDL,SIN, 100D,1:1,SM,TU | H1112NL-11 | PS-0023.001-D | 3 OF 3 | H1112NL | A |

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