

REVISIONS

REV.	DESCRIPTION	ECN NO.	DATE
01	FIRST RELEASE	N/A	10/31/19

PAGE 6,7 AND 8 ARE FOR INTERNAL ONLY

TITLE
**MODULAR JACK, RJ45, SINGLE,
 SMD, 100BASE-T(PoE), EXT. TEMP.**

When ordering, please add suffix "T" to the part number for tape & reel packaging (330mm reel).

WARNING !

ALL SHEETS OF THIS DOCUMENT ARE CONTROLLED DOCUMENTATION AND ARE NOT TO BE RELEASED OUTSIDE OF E&E OR ITS SUB-CONTRACTORS WITHOUT AUTHORIZATION.

UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE IN INCH/mm.

TOLERANCE ARE:

INCH	mm	ANGLE
.XXX ± .005	.XX ± .13	X.X ± 0.3
.XX ± .02	.X ± .5	X. ± 1

APPROVALS

DATE

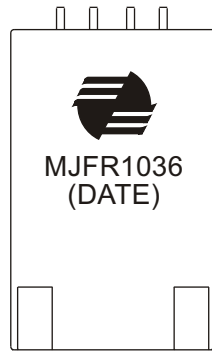
DRAWN BY J.S. CHEN	10/31/19
PROJ. ENG J.J. LI	10/31/19
APPROVED BY J.J. LI	10/31/19
Q.A. W. ZHANG	10/31/19



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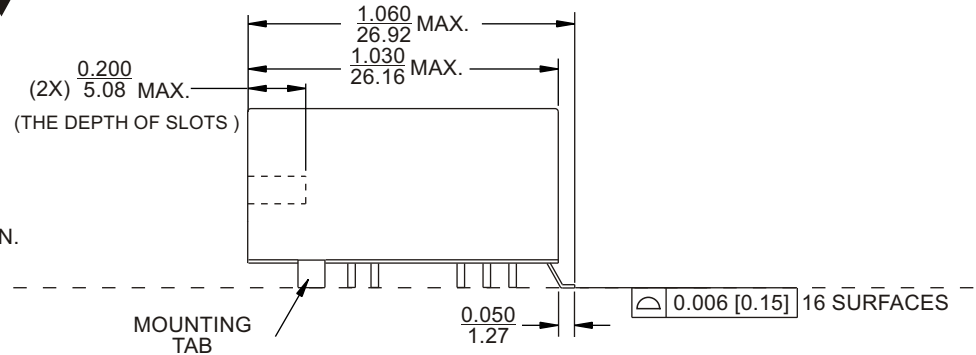
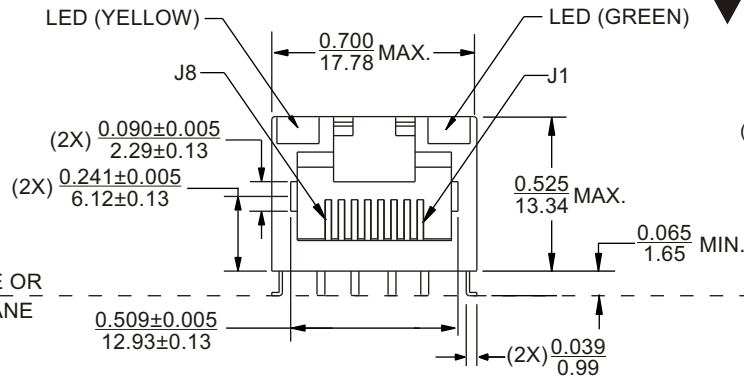
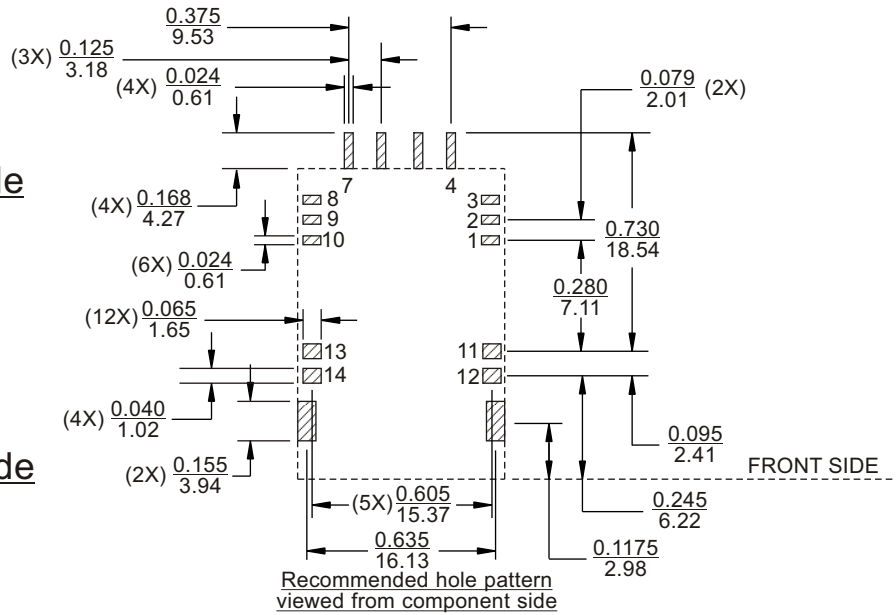
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Marking detail

Chip side

Cable side



1. DIMENSIONS ARE SPECIFIED IN $\frac{\text{INCHES}}{\text{mm}}$ WITH HIGHER PRECEDENCE IN INCHES.
2. UNLESS OTHERWISE SPECIFIED, ALL TOLERANCE ARE $\pm \frac{.010}{0.25}$.
3. "(DATE)" INCLUDES AT LEAST THE MANUFACTURING DATE CODE (IN YYWW FORMAT) PLUS TWO CHARACTER COUNTRY CODE.
4. 30 MICRO-INCH (0.76 μm) MIN. GOLD PLATING THICKNESS OVER CONTACT AREA.
5. RoHS COMPLIANT PER EU DIRECTIVE 2002/95/EC. (WITHOUT EXEMPTION OF SOLDER CONTENT)
6. METAL SHELL IS NOT AVAILABLE.

MECHANICAL OUTLINE



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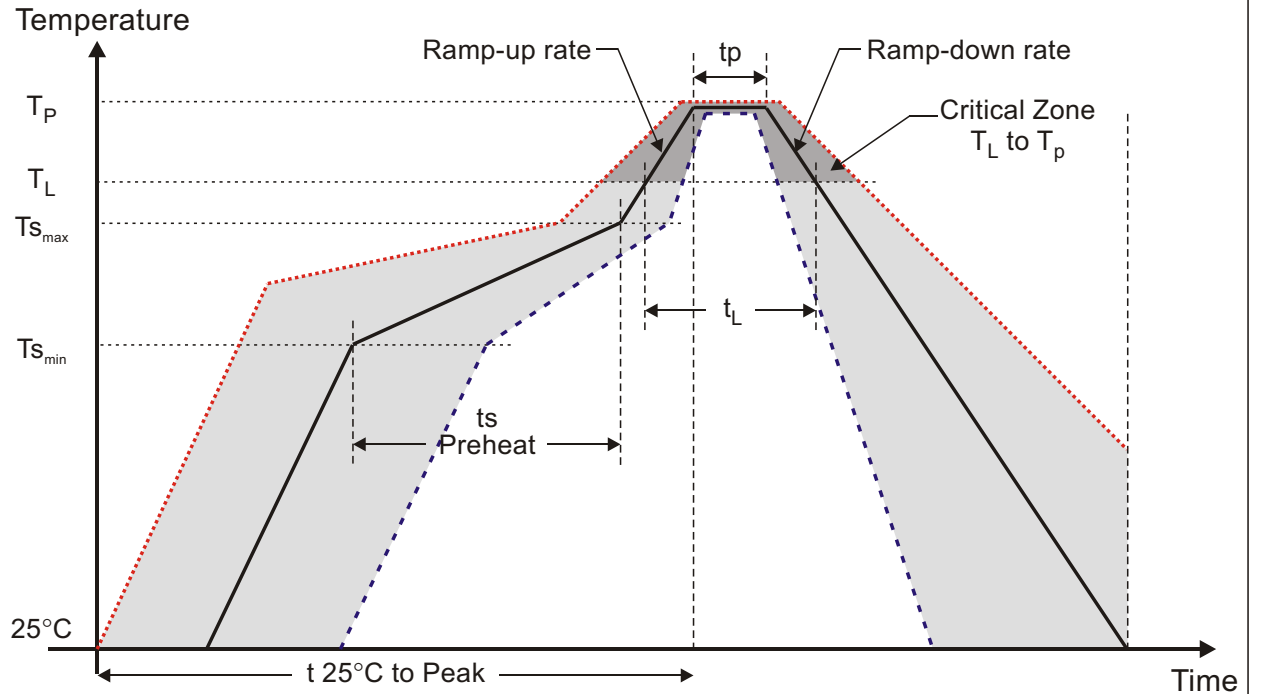
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Reflow Profile

- Black line represents typical reflow profile
- Red line represents upper temperature limit
- - - Blue line represents lower temperature limit

RECOMMENDED IR REFLOW PROFILE

PROFILE FEATURE	UNIT	LIMITS
Average Ramp-Up Rate($T_{s_{max}}$ to T_p)	°C/sec	3 Max
Preheat - Temperature Min($T_{s_{min}}$)	°C	150
Preheat - Temperature Max($T_{s_{max}}$)	°C	200
Preheat - Time ($t_{s_{min}}$ to $t_{s_{max}}$)	sec	60 - 180
Temperature (T_L)	°C	217
Time(t_L) maintained above temperature (T_L)	sec	60 - 150
Peak/Classification Temperature (T_p)	°C	245 +0 / -5
Time(t_p) within 5°C of actual Peak Temperature(T_p)	sec	20 - 40
Ramp-Down Rate	°C/sec	6 Max
Time 25°C to Peak temperature(T_p)	min	8 Max



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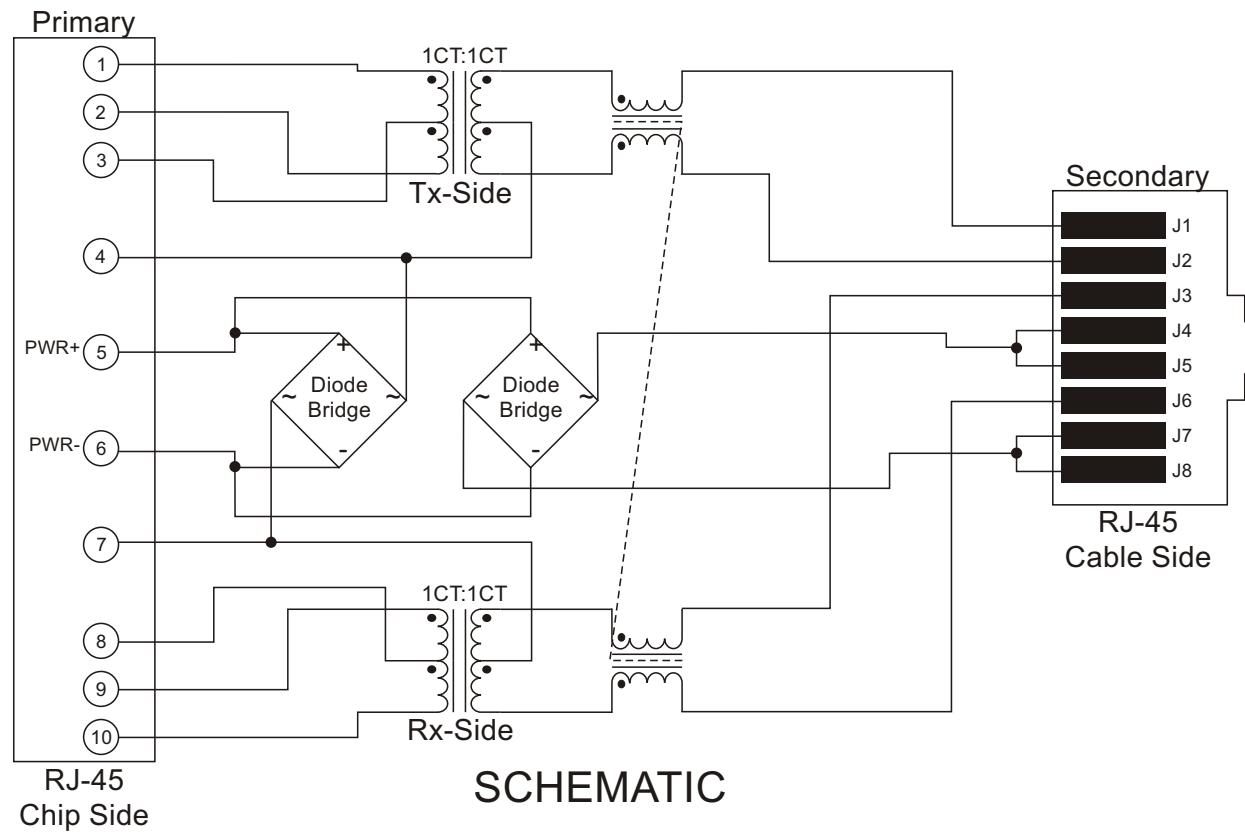
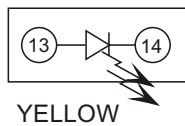
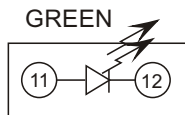
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7. DIODE BRIDGE DEVICE TO BE FAIRCHILD MB2S OR MB2SNL OR EQUIVALENT.



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ELECTRICAL SPECIFICATION @25 C:

PARAMETERS	UNIT	TX-SIDE	RX-SIDE
Turns Ratio (Primary):(Secondary)	-	1CT:1CT ± 3%	1CT:1CT ± 3%
Polarity (Primary):(Secondary)	-	Per Schematic	Per Schematic
Inductance, Ls(Primary) @100kHz, 0.1Vrms, 8mADC	uH	350 Min	350 Min
Insertion Loss @0.1-100MHz	dB	1.3 Max	1.3 Max
Return Loss @1-30MHz	dB	16.0 Min	16.0 Min
Return Loss @40MHz	dB	14.0 Min	14.0 Min
Return Loss @50MHz	dB	13.0 Min	13.0 Min
Return Loss @60-80MHz	dB	12.0 Min	12.0 Min
CMRR @30MHz	dB	35.0 Min	35.0 Min
CMRR @60MHz	dB	30.0 Min	30.0 Min
CMRR @100MHz	dB	25.0 Min	25.0 Min
Crosstalk @0.1-100MHz (TX<==>RX)	dB	30.0 Min	
HIPOT (Primary):(Secondary)	Vrms	1500 Min	1500 Min

ELECTRICAL SPECIFICATION @25 C:

PARAMETERS	UNIT	COMMON MODE CHOKE
Inductance, Ls@100kHz, 0.1Vrms	uH	200.0 Typ
Self resonant frequency (SRF)	MHz	18.5 Typ

LED SPEC. @20mA FORWARD CURRENT

Color	GREEN	YELLOW
Wavelength	565nm Typ	590nm Typ
Forward Voltage	2.2V Typ	2.1V Typ

8. MJFR0843 IS FOR REFLOW PROCESS.
9. OPERATING TEMPERATURE : -40°C TO +85°C.
10. BALANCED DC LINE CURRENT CAPABILITY (J1,J2-5) & (J3,J6-6): 350mADC MAXIMUM.
11. BALANCED DC LINE CURRENT CAPABILITY (J4,J5-5) & (J7,J8-6): 350mADC MAXIMUM.



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