

Specification for Approval

Customer:	
Customer P/N:	
EEC P/N:	ST12503A0
Spec No.:	
Version No.:	V0.1
Description:	10/100Base-TX
	BMS Application
	Meet AEC-Q200 Standard

Customer Approval		EEC Approval	
Inspected By:		Issued By:	Bob
Checked By:		Checked By:	/
Approved By:		Approved By:	Jerry
Approved Date:		Issued Date:	2024/7/15

Please Return One Copy to Us After Approved,TKS! (承认后请回寄一份,谢谢)

- Remark:
- 1. Before use, please confirm whether this product is suitable for your design, Scientific only ensure products meet this specification.
 - 2. This specification data change must be confirmed by both parties,any individual modification is invalid.
 - 3. If customer placed orders without signing back this specification, it is regarded as recognition

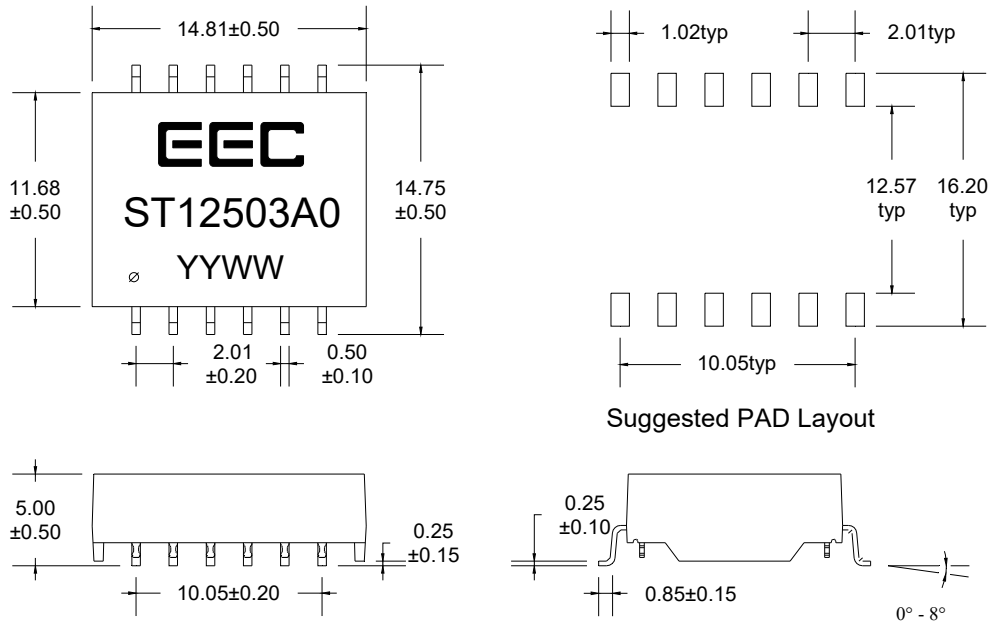


绵阳敦源电子科技有限公司
Mianyang Dunyuan Electronics Technology Co.,Ltd
地址：四川省绵阳市高新区综合保税区
ADD: Comprehensive Bonded Zone, High-Tech Industrial Development Zone Mianyang, SiChuan

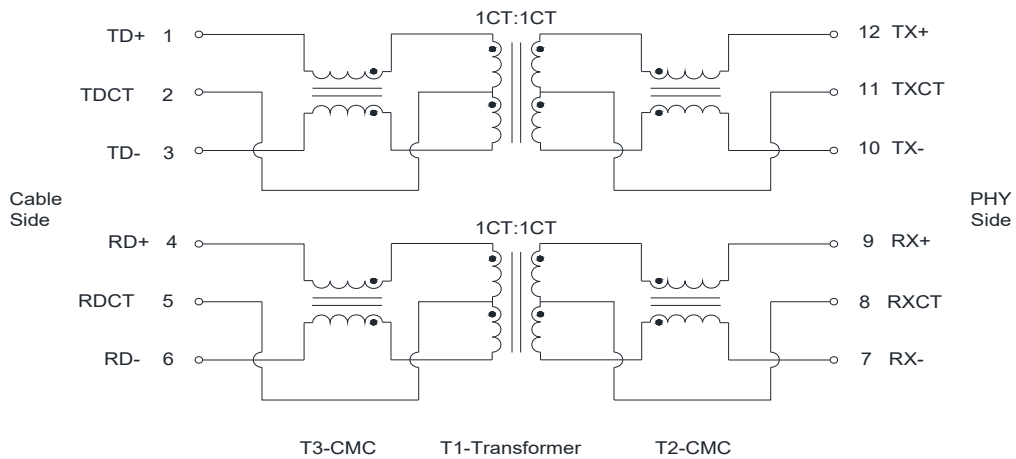
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A. MECHANICAL(unit:mm)



B. SCHEMATICS

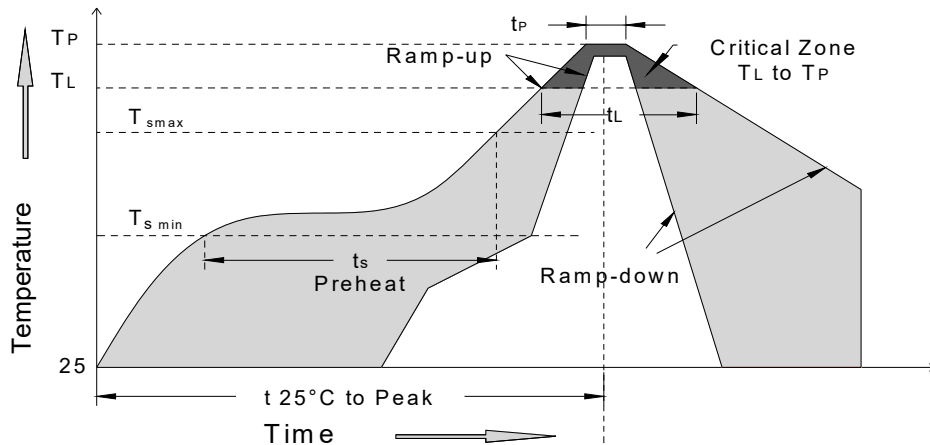


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C. ELECTRICAL SPECIFICATIONS @25°C

Unless Otherwise Specified, Testing is Performed at 25°C ± 5°C

- OCL(TD & RD): 600uH Min with 100 KHz, 0.1V @ 25°C
500uH Min with 100 KHz, 0.1V @ -20~+85°C
- Common Mode Choke Inductance: @100KHz, 0.1V
T3-CMC Inductance: 10-40uH
T2-CMC Inductance: 5-35uH
- Leakage Inductance:@ 100KHz, 0.1V
Cable Side Leakage Inductance: 0.6uH Max
PHY Side Leakage Inductance: 0.6uH Max
- Leakage Inductance Balance (Center Tap Symmetry):
T3-CMC: 0.9uH Max
T2-CMC: 0.9uH Max
- DCR(Cable Side & PHY Side): 1400mΩ Max
- Turns Ratio(TD to TX, RD to RX): 1CT:1CT±5%
- Insertion Loss(TD to TX, RD to RX): -0.4 dB Max @ 4 MHz
- Return Loss(TD & RD, TX,RX with 100OHMS Load): -20 dB Min @ 4 MHz
- Cross Talk(Between Each Channel): -50 dB Min @ 4 MHz
- Common Mode Rejection(TD to TX,RD to RX): -35 dB Min @ 1-100 MHz
-20 dB Min @ 100-1000 MHz
- Differential to common rejection ratio(TD to TX,RD to RX): -35 dB Min @ 1-100MHz
-20 dB Min @ 100-1000MHz
- Isolation Hipot: 4300VDC 1mA 60S or 3700VAC 1mA 2S
- Qualification: AEC-Q200
- Operating temperature -40°C to +125°C
- Storage temperature -40°C to +125°C

D. RECOMMEND REFLOW SOLDERING CURVE

MSL:

Grade: 1 level. Floor life: 0.5 year Condition: $\leq 30^\circ C/60\% RH$.

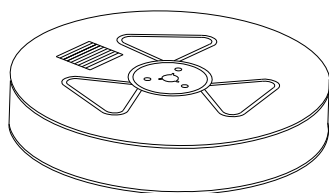
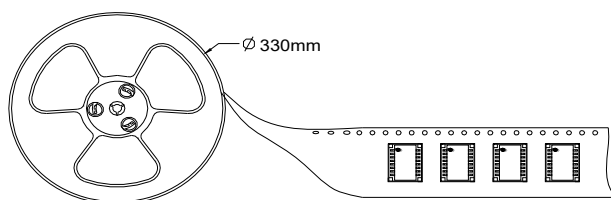
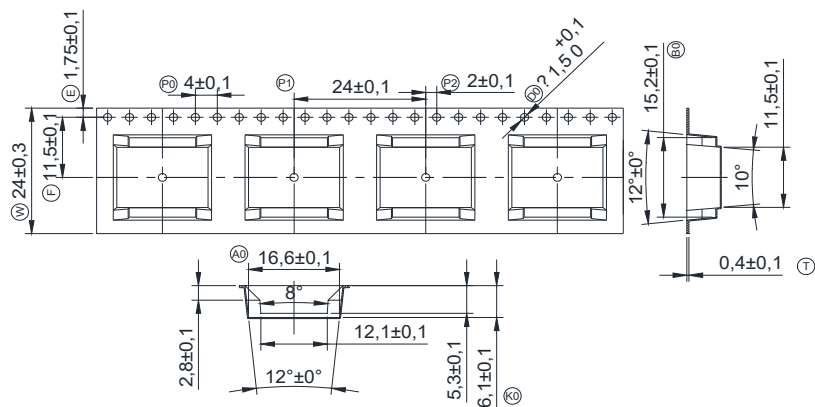
Ramp up rate= $3^\circ C/s$ max Ramp down rate= $6^\circ C/s$ max

$T_L=217^\circ C$ $t_L=60s-150s$ $T_p=250+/-3^\circ C$ Time within $5^\circ C$ of actual Peak Temperature (t_p): 20~40s

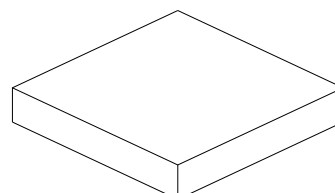
$T_{s\ min}=150^\circ C$ $T_{s\ max}=200^\circ C$ $T_{s\ min}$ to $T_{s\ max}$: 60s-180s, $25^\circ C$ to peak Temperature: 8minutes max

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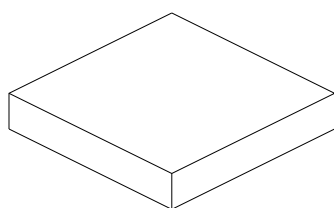
E. PACKAGE INFORMATION



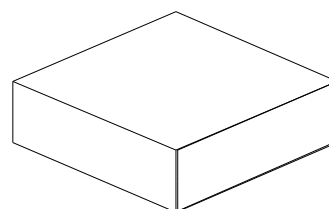
Three Reel



Inner Carton



Two Inner Carton



Export Carton

Package Quantity:

One Reel=300Pcs

One Inner Carton=300*3=900Pcs

One Export Carton=900*2=1800Pcs

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