DGKYD

10/100BASE-TX TRANSFORMER MODULES

Features：

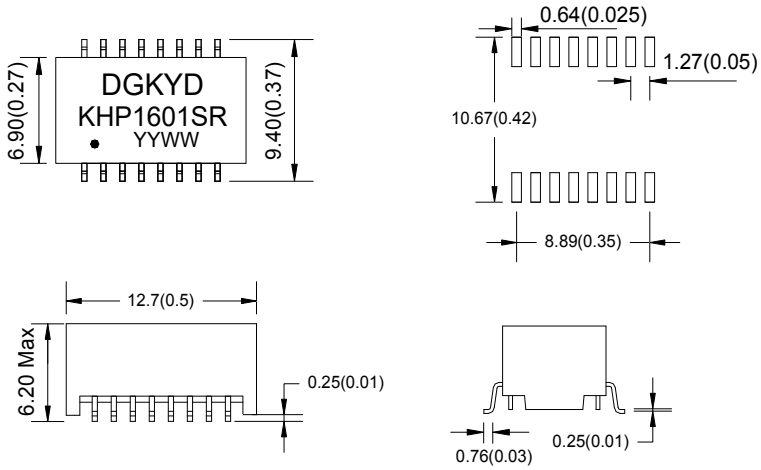
- IEEE 802.3at/ANSI X3.263 compliant performance.
- 1000mA current capability for POE product
- Storage temperature range:：-40～+85℃,90%RH
- RoHS compliant

Specifications

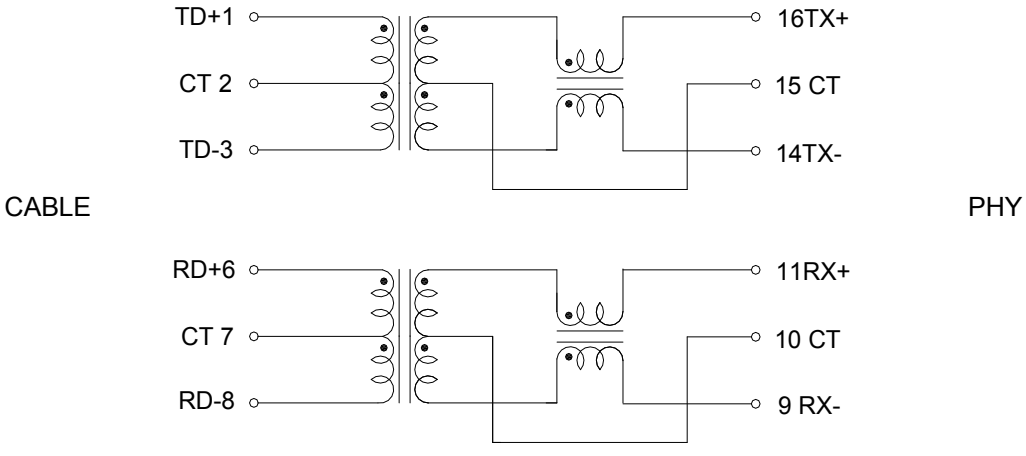
Electrical Specification@25℃ Operating Temperature -40 to + 85℃							
Part NO	Trun Ratio (±3%)		OCL primary@ 100KHz,0.1Vrms,18mA	Leakage primary@ 100KHz,0.1Vrms	Cww (Pri.:Sec.)	DCR (Ω)	
	TX	RX				Primary	Secondary
KHP1601SR	1CT:1CT	1CT:1CT	350uH Min	0.5uH max	35pF Max	1.0 Max	0.9 Max

Electrical Specification@25℃ Operating Temperature -40 to + 85℃									
Part NO	Insertion loss (dB max) 1-100MHz	Return loss(dB min) MHz				CMRR (dB min .) MHz		Crosstalk (dB min .) MHz	Isolation Voltage (Vrms min)
		1-30	40	50	60-100	1-60	60-100	1-100	
KHP1601SR	-1.0	-18	-16	-16	-10	-35	-30	-33	1500

Dimension:mm(inch)+/-0.25(0.01)



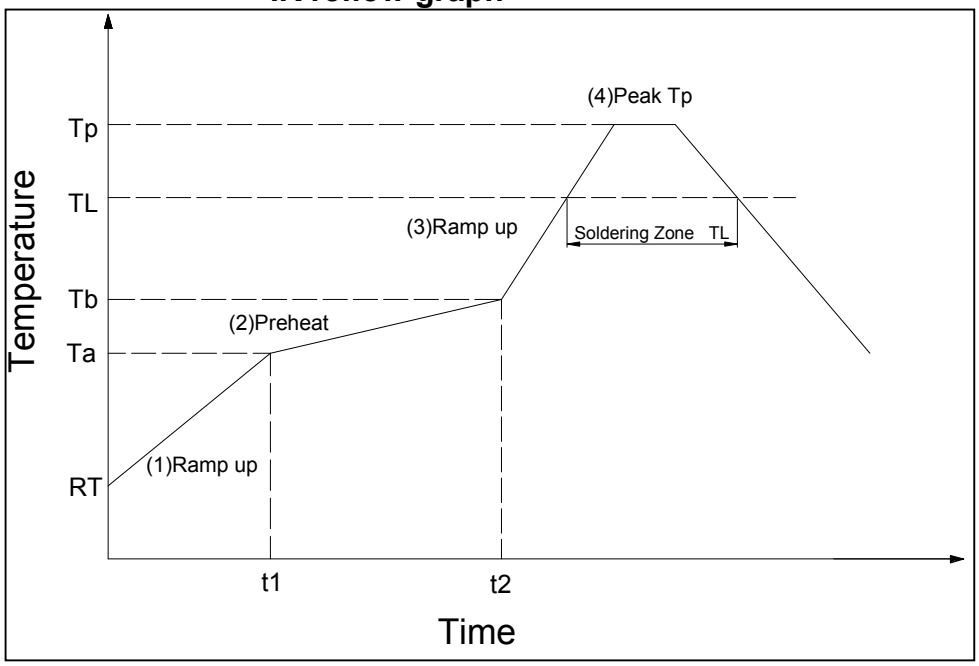
Schematic



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5.SUGGEST PROFILE

IR reflow graph



IR reflow profile

Form-1（Reference JEDEC J-STD-020C Table 5-2））

IR reflow profile		Sn-Pb	Pb-free
step#	Profile Feature	Condition/Duration	Condition/Duration
step1	Ramp-up rate	1.5-3℃/sec.	1.5-3℃/sec.
step2	Preheat : 100~150℃(Ta-Tb)	t1-t2 : 60~120 sec.	t1-t2 : 60~180 sec.
step3	Ramp-up rate(T_L to T_P)	1.5-3℃/sec.	1.5-3℃/sec.
	Temperature maintained above 183℃(T_L)	T_L : 60-150sec.	T_L : 80-150sec.
step4	Peak temperature(T_P)	230+5/-10℃	260+0/-5℃
	Time within 5℃ of actual peak temperature	30±10 sec.	30±10 sec.
step5	Ramp-down rate	6℃/sec.Max	6℃/sec.Max
Note1	Subject the samples to 3 cycles of the above defind reflow conditions		Subject the samples to 3 cycles of the above defind reflow conditions
Note2	Time 25℃ to peak temperature : 6 minutes max.		Time 25℃ to peak temperature : 8 minutes max.
Note3			The time between reflows shall be 5 minutes minimum and 60minutes maximum

SnPb Eutectic Process- "Package Peak Reflow Temperature"

Form-2 (Reference JEDEC J-STD-020C Table 4-1)

产品厚度	产品体积＜350mm3	产品体积≥350mm3
＜2.5mm	240 +0/-5℃	225 +0/-5℃
≥2.5mm	225 +0/-5℃	225 +0/-5℃

Pb-free Process - "Package Peak Reflow Temperature"

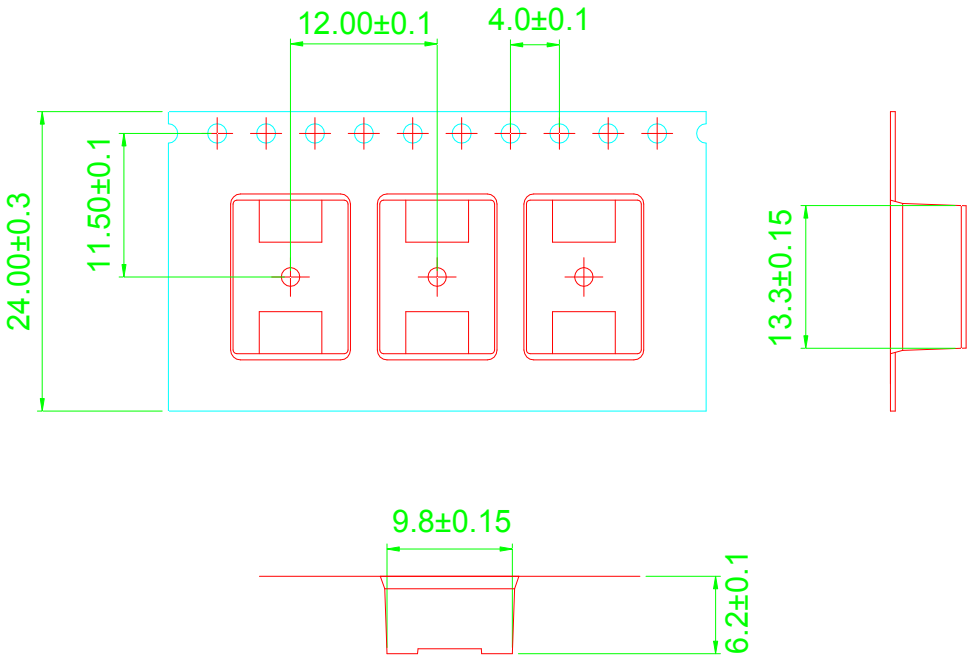
Form-3 (Referencre JEDEC J-STD-020C Table 4-2)

产品厚度	产品体积＜350mm^3	产品体积350mm^3-2000mm^3	产品体积＞2000mm^3
＜1.6mm	260 +0/-5℃	260 +0/-5℃	260 +0/-5℃
1.6mm-2.5mm	260 +0/-5℃	250 +0/-5℃	245 +0/-5℃
＞2.5mm	250 +0/-5℃	245 +0/-5℃	245 +0/-5℃

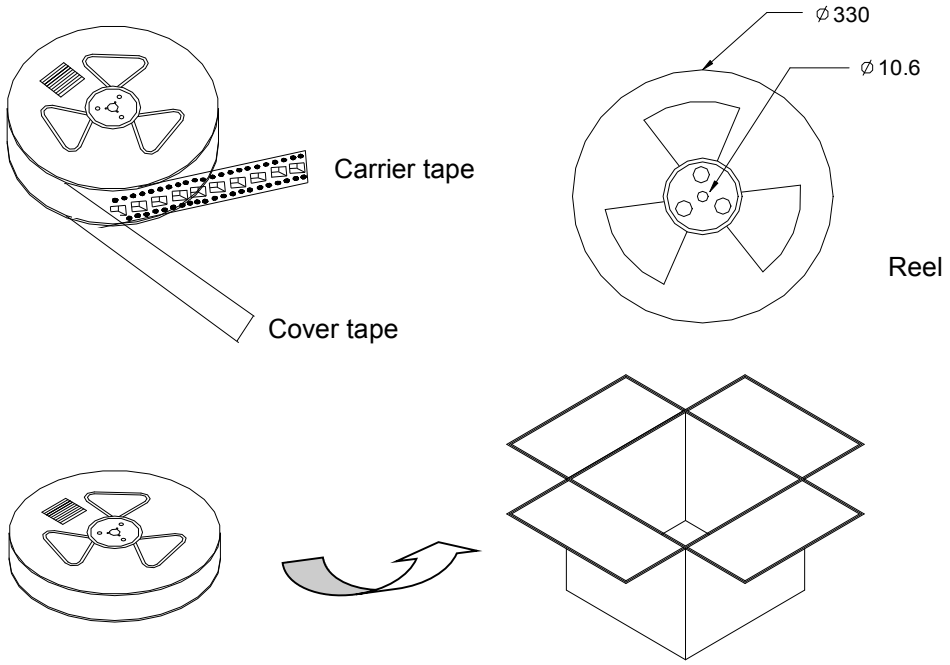
6.Reliability

No.	Test Item	Refer To Standard	Test Condition
1	Resistance To Soldering Heat--Convection Reflow	IPC/JEDEC J-STD-020D	1).Peak Temperature: Refer to Specification According to Package Body Thickness And Volume 2).Preheat Temperature and Soak Time: 150~200℃,60~120 Seconds 3).Average Ramp-up Rate: 3℃/Second Max 4).Above 217℃: 60~150 Seconds 5).Peak Temperature-5℃: Over 30 S
2	Thermal Shock	IEC68-2-14 Method A	1.Low Temperature:-40℃ 2.High Temperature:125 3.Dwell Time:30 Minutes 4.Transition Time: Less Than 5Minutes 5.Number of Cycles: 10
3	High Temperature	IEC68-2-2 Method A	125℃,96Hours
4	Low Temperature	IEC68-2-1 Method A	-40℃,96Hours
5	Temperature Humidity Cycle	IEC68-2-38	Temp Humidity soak time 25~65°C 93+/-3%RH 1.5 hr 65°C 93+/-3%RH 4 hr 65~25°C 80~96%RH 2.5 hr 25~65°C 93+/-3%RH 1.5hr 65°C 93+/-3%RH 4hr 65~25°C 80~96%RH 2
6	Vibration	IEC68-2-6	1.Sine Wave 2.Amplitude:0.75mm 3.Frequence:5~500~5Hz 4.Direction: X,Y,Z 5.Number of Sweep Cycles Per Direction:10 6.Duration: 2 Hours Each Direction
7	Mechanical Shock	MIL-STD-202	1).Half -Sine Wave 2).Peak Acceleration:50G 3).Duration:11mS 4).Direction: X,Y,Z,-X,-Y,-Z 5).Number of Shock Per Direction:3
8	Free Drop	ISO4180	1) Height: Refer to Specification According to Production weight 2).1Corner,3Edges,6Faces .Total Are 10 Times
9	Solderability	JESD22-B102D	1).Precondition:150±5°C,16±0.5Hours 2).Flux Type:ROL1 3).Immersion Flux Time: 5~10 Seconds 4).Solder Temperature:245±5°C 5).Solder Immersion Time:5±0.5 Seconds 6).Solder Immersion/Emersion Speed:25.4±6.4mm/Second
10	Accelerated Moisture Resistance---Unbiased Autoclave	JESD22-A102-C	1.Temperature:121°C 2. Humidity: 100% 3. Vapor Pressure: 29.7 Psia or 205KPa 4.Duration:96 hours

7 CARRIER TAPE



8 PACKAGE



Product	PCS/Reel	PCS/Box	Product No.	Weigh(g/pcs)
SMD 16PIN Series	750	750x6=4500		0.646