

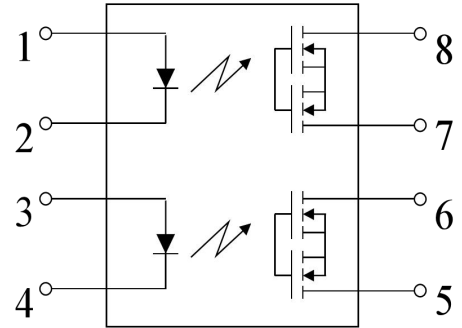


JOR214D4 JOR214D8

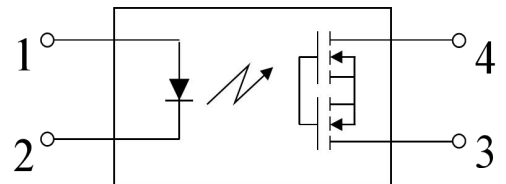
Description

The JOR214D4 and JOR214D8 consists of a AlGaAs infrared emitting diode input stage optically coupled to a high-voltage output detector circuit. The detector consists of a high-speed photovoltaic diode array and driver circuitry to switch on/off two discrete high voltage MOSFETs.

Block Diagram and Package



1, 3: Anode (LED)
2, 4: Cathode (LED)
5, 6, 7, 8: Drain (MOS FET)



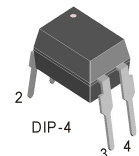
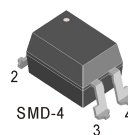
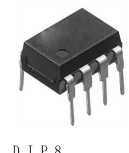
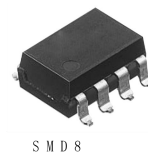
1: Anode (LED)
2: Cathode (LED)
3, 4: Drain (MOS FET)

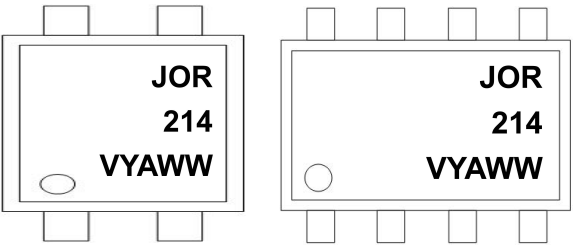

Features

- Normally open, single pole single throw
● Control 400V AC or DC voltage
● Switch 120mA loads
● Controls low-level analog signals
● High sensitivity, low ON resistance
● Low-level off-state leakage current
● High isolation voltage 5KV (DIP / SMD)
● Pb free and RoHS compliant

Application

- Telecommunications(PC, electronic notepad)
● Modem/Sensors
● Telephone /Security equipment
● Measuring and testing equipment
● Factory automation equipment
● High speed inspection machines



ORDERING AND MARKING INFORMATION	
MARKING INFORMATION	
	<p>JOR : Company Abbr. 214 : Part Number VYAWW : LOT NO.</p>
ORDERING INFORMATION	LABEL INFORMATION
JOR214DX(Y)(Z)-G	
<p>JOR – Company Abbr 214 – Part Number D – DIP or SMD Package X – 4 or 8(Pin Count) Y – Lead Form Option (M/S/SL/None) Z – Tape and Reel Option (T1/T2) G – Green</p>	

Absolute Maximum Ratings (T_A=25°C)

Parameter		Symbol	Rating	Unit	Note
Input	LED Forward Current	I _F	50	mA	
	LED Reverse Voltage	V _R	3	V	
	Peak Forward Current	I _{FP}	1	A	f=100 Hz, Duty cycle= 0.1%
	Power Dissipation	P	75	mW	
Output	Load Voltage (peak AC)	V _L	400	V	
	Continuous Load Current (peak AC)	I _L	0.12	A	
	Peak Load Current	I _{peak}	0.3	A	100 ms (1 shot), V _L = DC
	Power Dissipation	P _{out}	800 500	mW	DIP8 SMD8 DIP4 SMD4
I/O isolation voltage		V _{iso}	5,000	VAC	DIP SMD
Temperature Limits	Operating Temperature	T _{opr}	-40°C ~ + 85°C	°C	Non-condensing at low temperatures
	Storage Temperature	T _{stg}	-40°C ~ + 100°C		

Electro-optical Characteristics (Ta=25°C)

Parameter		Symbol	Condition	Min	Typ	Max	Unit
Input	LED operate current	I _{Fon}	I _L =0.12A	0.1	0.6	3	mA
	LED reverse current	I _{Foff}	I _L =0.12A	0	0.5	3	mA
	LED dropout voltage	V _F	I _F =5mA	1	1.3	1.4	V
Output	On resistance	R _{on}	I _F =5mA, I _L =0.12A, Within 1s on time	0	13	20	Ω
	Off state leakage current	I _{Lcak}	I _F =0mA, V _L =400V	-	-	1000	nA
Transfer Characteristics	Turn on time	T _{on}	I _F =5mA, I _L =0.12A	10	110	2000	us
	Turn off time	T _{off}	I _F =5mA, I _L =0.12A	10	220	1000	us
	I/O Isolation capacitance	C _{iso}	f=1MHz, V _B =0		0.8	1.5	pF
	Initial I/O Isolation resistance	R _{iso}	500V DC	1,000			MΩ

Note: Recommended LED Forward Current I_F=5 to 10mA.

Typical Performance Curves

Fig.1 Load Current--Ambient temperature

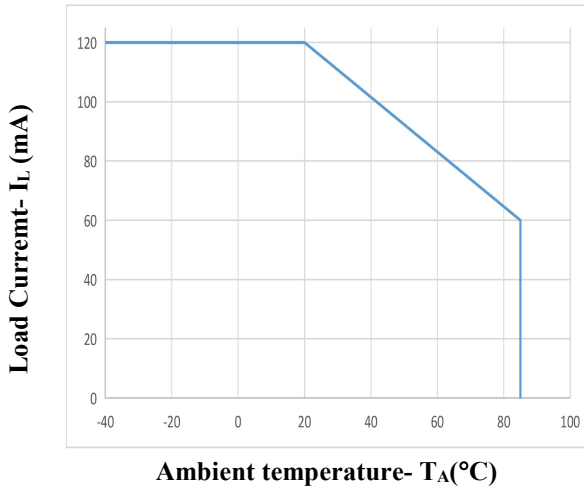


Fig.2 On resistance--Ambient temperature

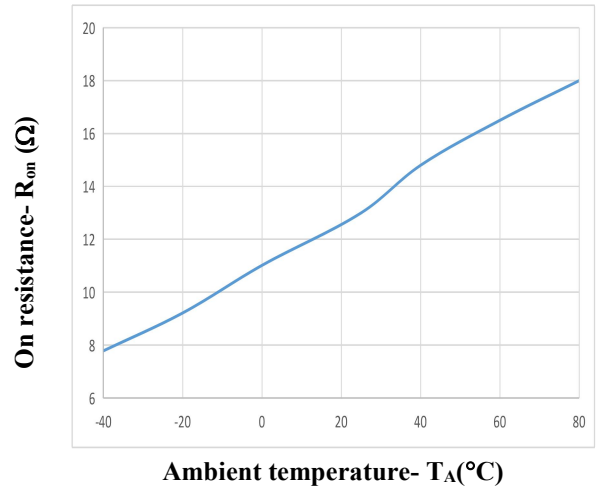


Fig.3 Turn on time--Ambient temperature

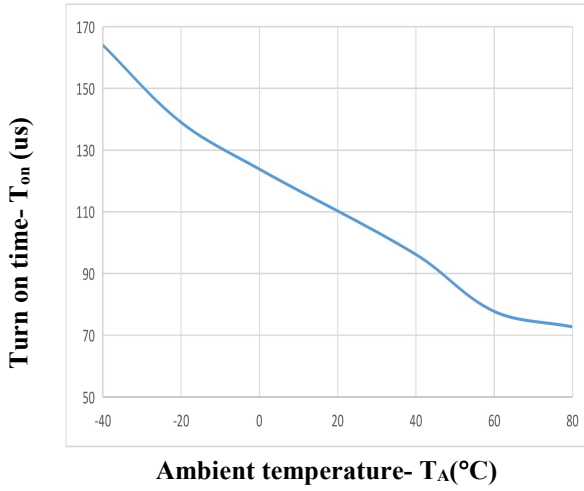


Fig.4 Turn off time--Ambient temperature

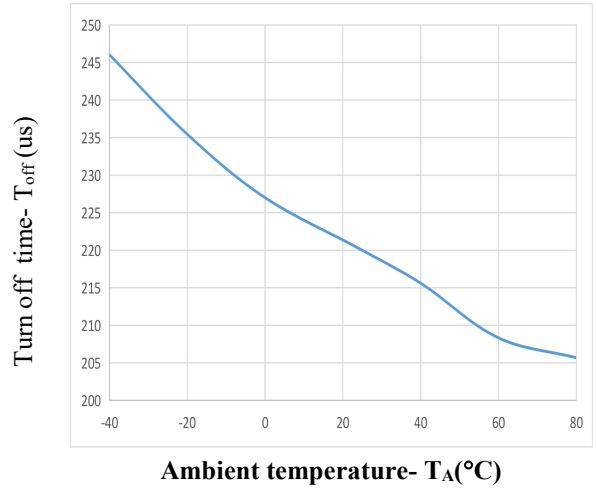


Fig.5 LED operate current--Ambient temperature

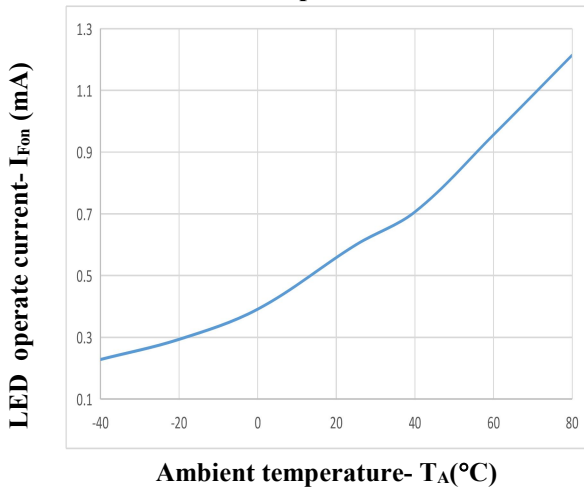


Fig.6 LED reverse current--Ambient temperature

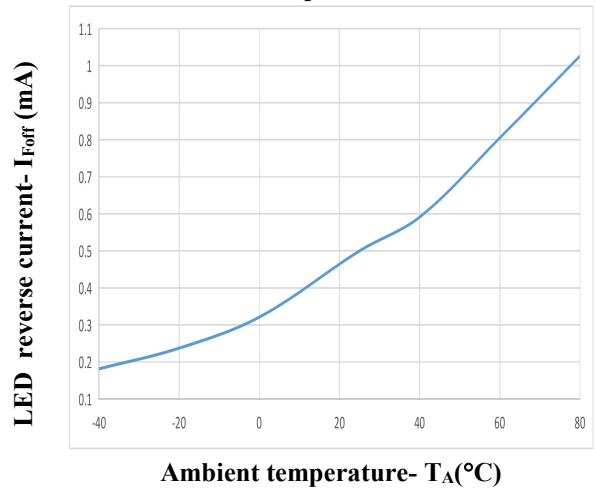


Fig.7 LED Forward Voltage--Ambient temperature

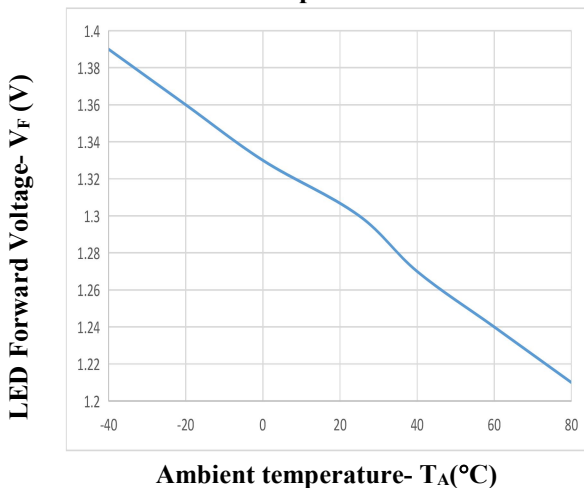


Fig.8 Output current--Voltage characteristics

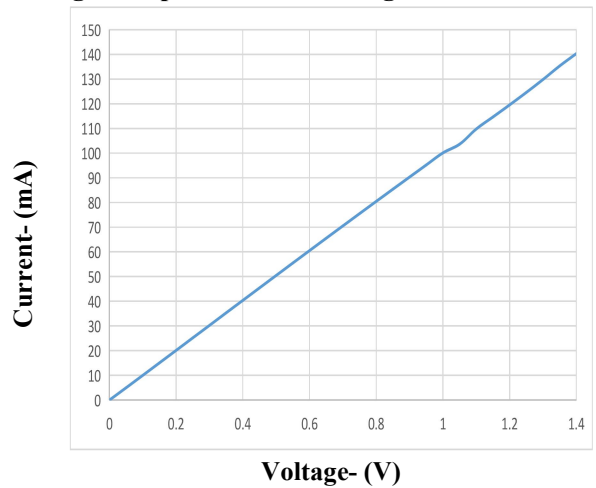


Fig.9 Off state leakage current--Load Voltage

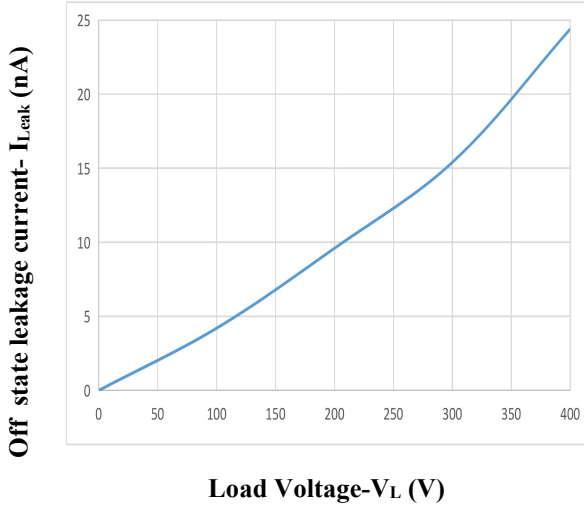


Fig.10 Turn on time--Forward Current

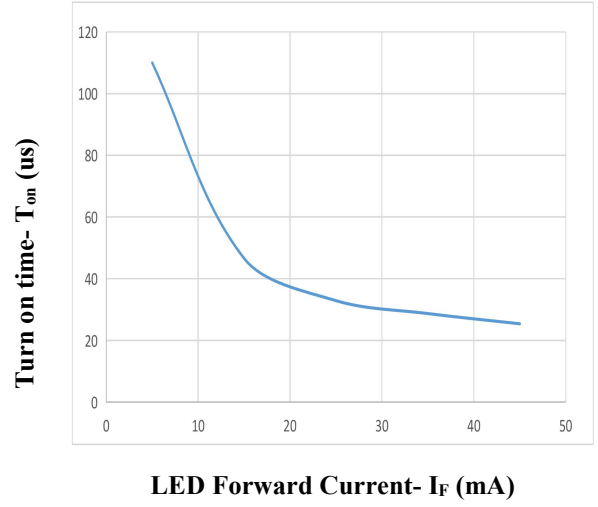
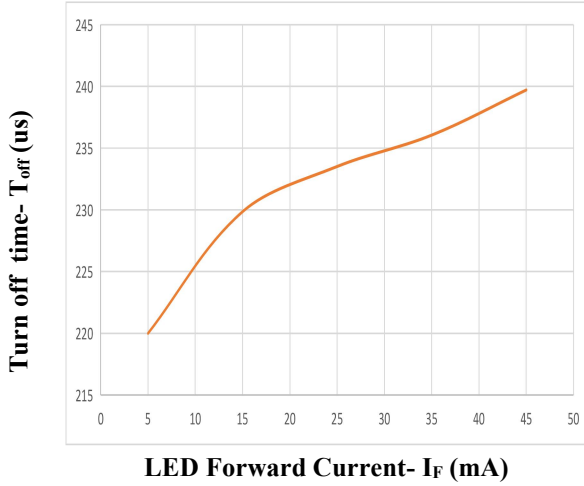
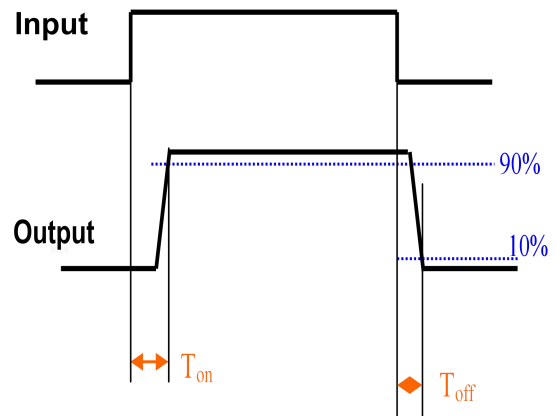


Fig.11 Turn off time--Forward Current

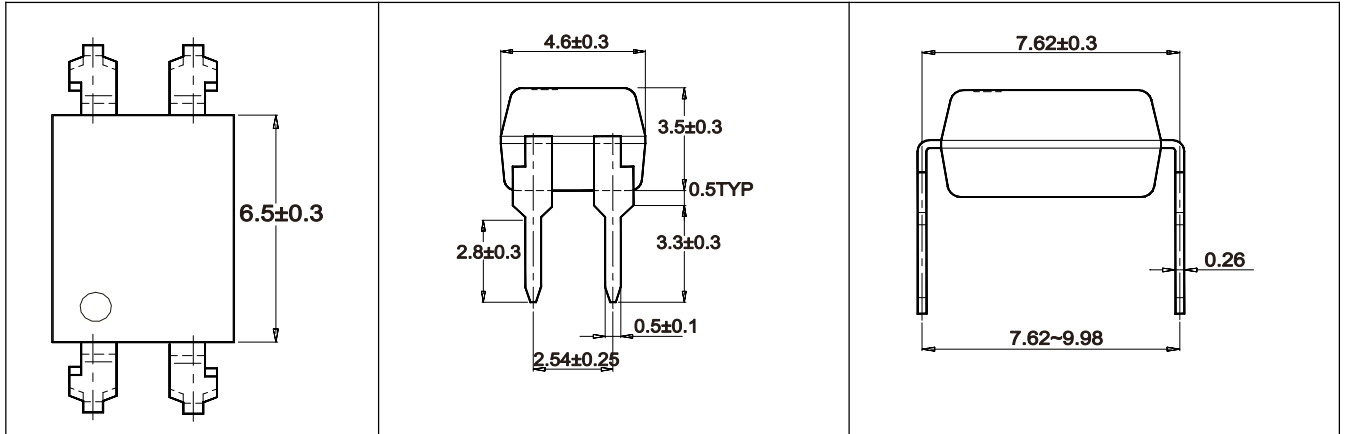


★ Turn on/off time

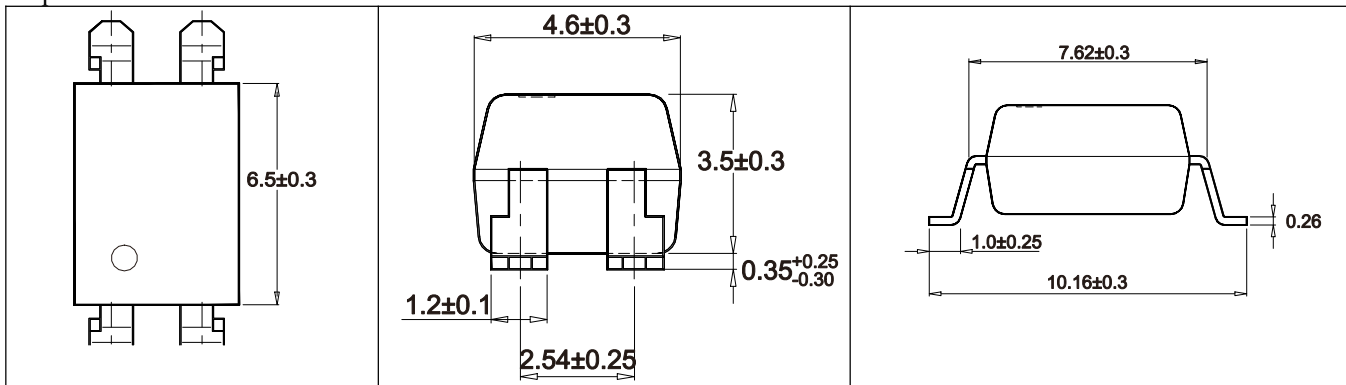


Package Dimensions

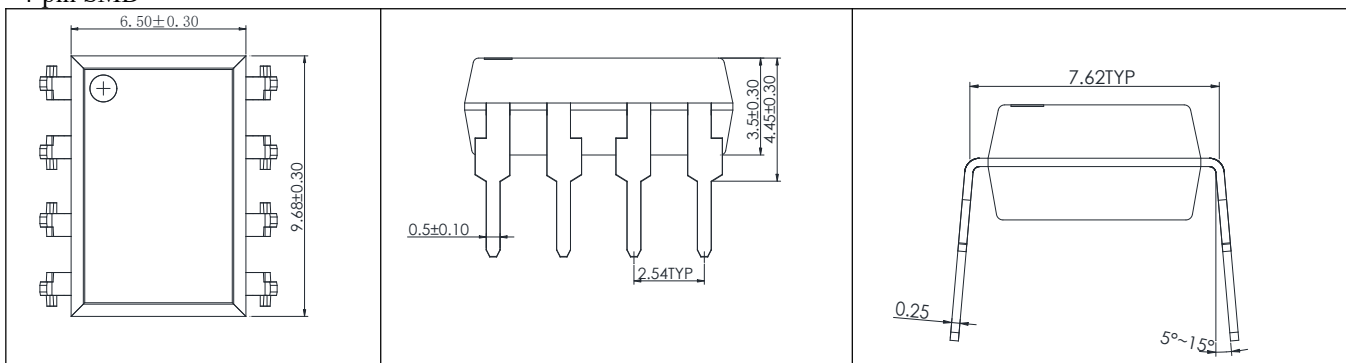
Unit: mm



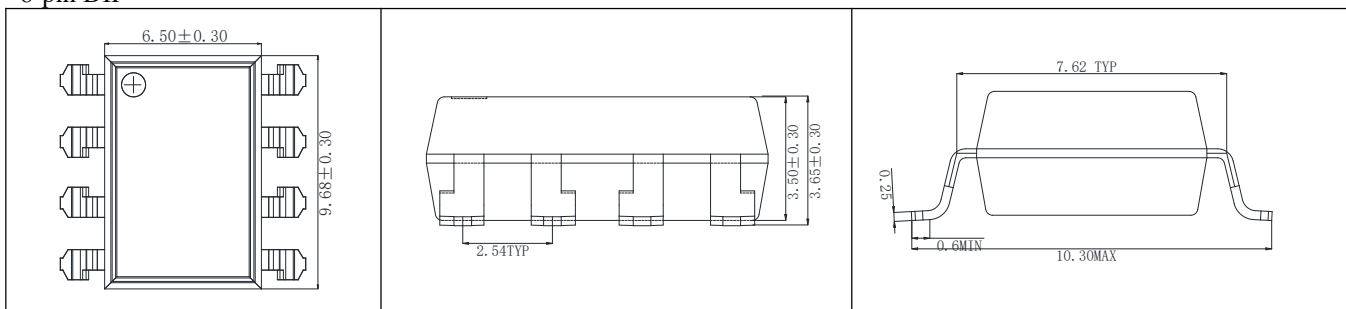
4-pin DIP



4-pin SMD



8-pin DIP



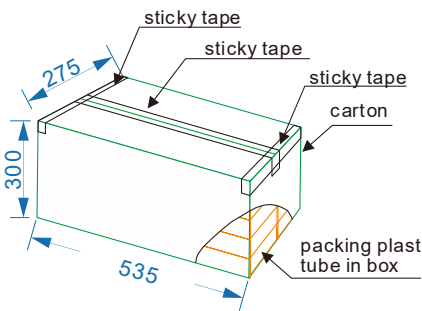
8pin SMD

Packing

Package Type	Packing Form	Quantity per Reel	Quantity per Box	Quantity per Carton	Antistatic Bag Specification	Box Specification	Carton Specification	Note
DIP4	Tube (500*12*11mm)	100 pcs /tube	50 tubes/box	10 boxes /ctn	NA	525*128*56mm	535*275*300 mm	Endplug (blue) and Endplug (white) keep the direction
DIP8	Tube (500*12*11mm)	45 pcs /tube	50 tubes/box	10 boxes /ctn	NA	525*128*56mm	535*275*300 mm	
SMD4	Reel(ϕ 330mm Blue)	2K pcs/reel	2 reels/box	10 boxes/ctn	380*380mm	340*60*340mm	620*360*365 mm	Guard band 200mm min.
SMD8	Reel (ϕ 330mm Blue)	1K pcs/reel	2 reels/box	10 boxes/ctn	380*380mm	340*60*340mm	620*360*365 mm	

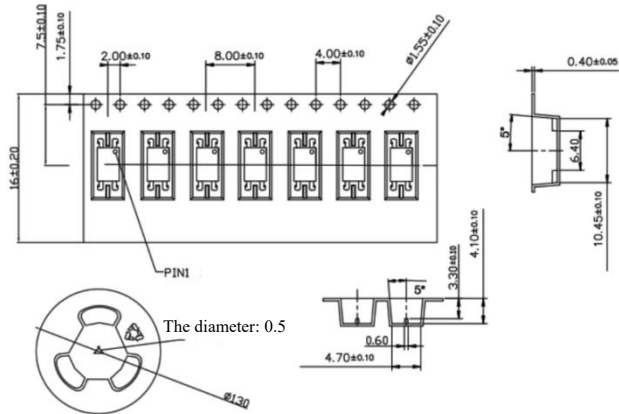
■ DIP-4 (tube)

- 1) Qty/ctn: 50000pcs
- 2) Qty/tube: 100pcs
- 3) Qty/box: 50tubes
- 4) Schematic:



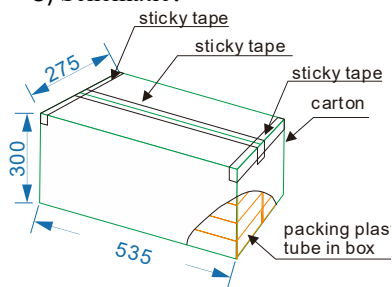
■ SMD-4 (Reel)

- 1) Qty/ctn: 40000pcs
- 2) Qty/reel: 2000pcs
- 3) Inner packing: 2reels/box
- 4) Schematic:



■ DIP-8 (tube)

- 1) Qty/ctn: 22500pcs
- 2) Inner packing:
 - i. 45pcs /tube
 - ii. 50tubes/box
- 3) Schematic:



■ SMD-8(Reel)

- 1) Qty/ctn: 20000pcs
- 2) Qty/reel: 1000pcs
- 3) Inner packing: 2reels/box
- 4) Schematic:

