

**Description:** 18x18x4mm GPS/Glonass SMD Mount

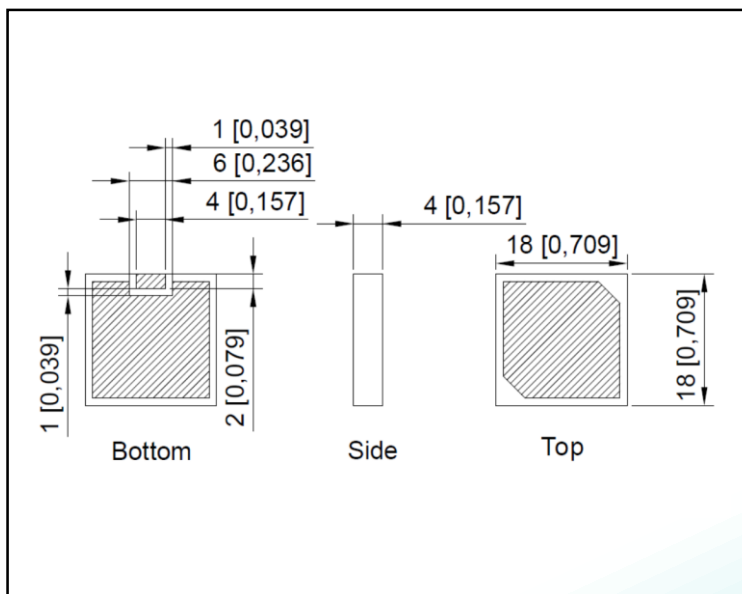
**Series:** Ceramic Patch

**PART NUMBER:** W3224



### Features:

- 1575/1602MHz Dualband single feed antenna
- RHCP Polarization
- Zenith Gain +3dBiC
- SMD compatible
- Tape & Reel packing
- Moisture sensitivity level:MSL1



### Applications:

- GPS and Glonass satellite receivers
- Tracking, Navigation, Satellite Positioning
- Fleet management
- Asset tracking

All dimensions are in mm / inches

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## ELECTRICAL SPECIFICATIONS

Frequency	1575.42±1.023/1602.5625±4 MHz
Nominal Impedance	50 Ω
Return Loss*	<-10 dB
RHCP Gain (typical)*	2/2.5 dBiC
Zenith Axial Ratio(typical)*	9.5
Polarization:	RHCP

\* Measured on 70 x 70 mm reference board

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### MECHANICAL SPECIFICATIONS

Material	Ceramic
Metallization	Silver
Size	18 x 18 x 4 mm
Weight	6.1 g
Mounting type	SMD

### ENVIRONMENTAL SPECIFICATIONS

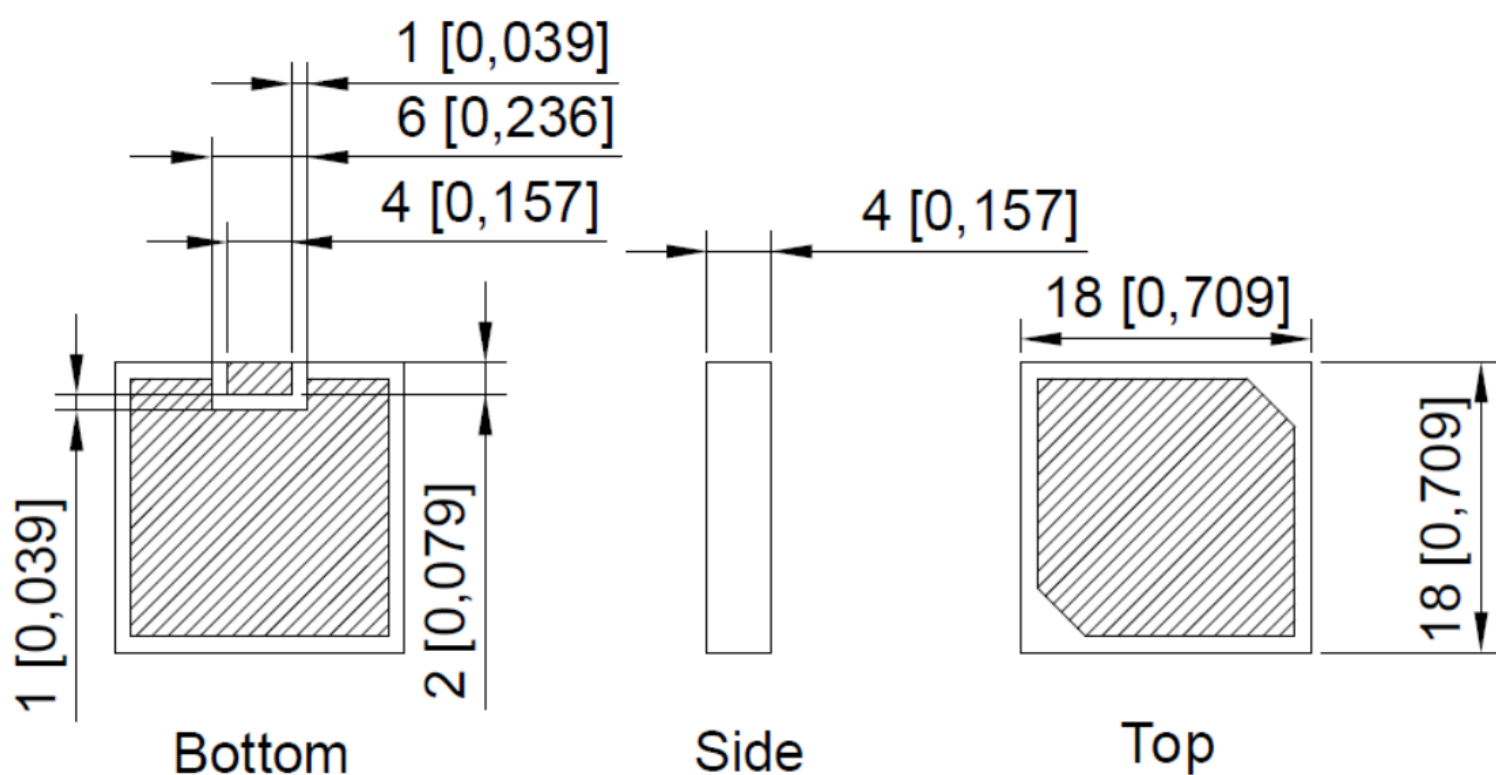
Operating temperature	-40/+85 ° C
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MECHANICAL DRAWING



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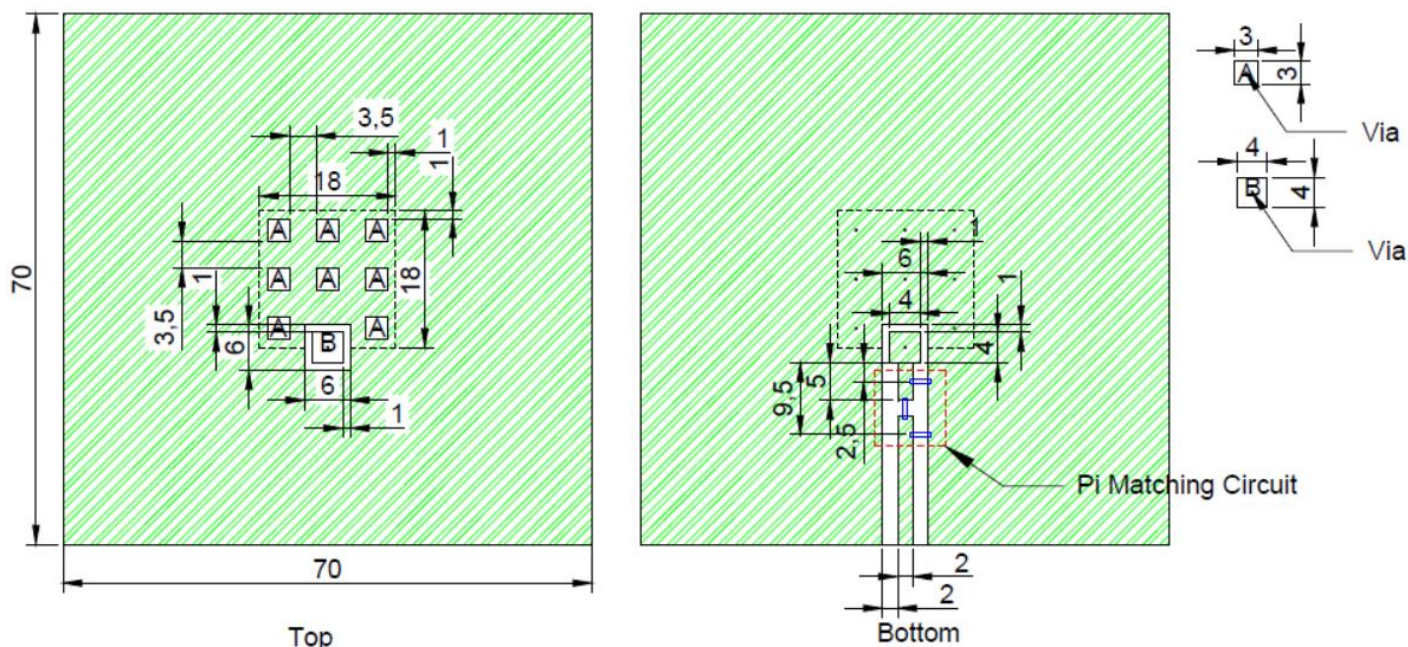
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## OTHER SPECIFICATIONS

### Test Condition Ground Plane (Example for PCB 1 mm)



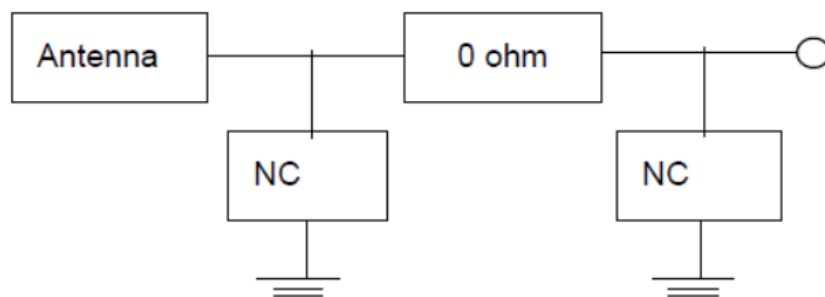
Unit : mm

A, B are Solder Pads

Bottom side needs  $\pi$  matching circuit.

Tolerance :  $\pm 0.2$  mm

$\pi$  matching circuit :



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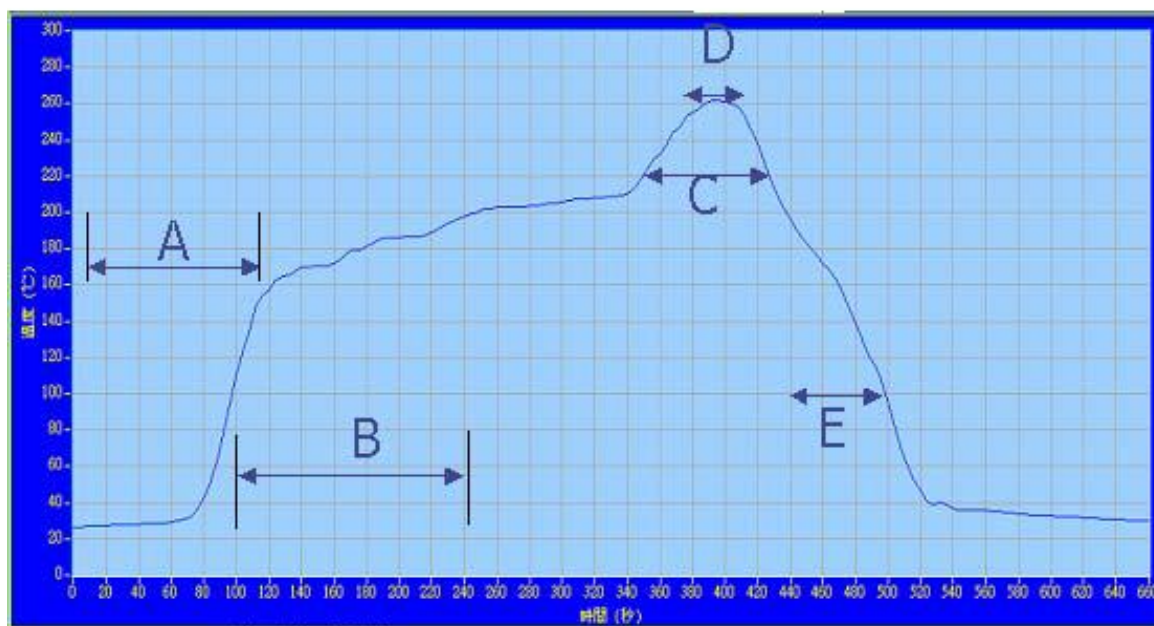
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## OTHER SPECIFICATIONS

### Recommendable Reflow Soldering



A	Rising temperature	The normal to Preheating	60s to 120s
B	Preheating	80°C to 200°C	140s to 150
C	Temperature	220°C to 260°C to 220°C	80 to 90s
D	Main heating	if 260°C	20s~30s
E	Regular cooling	200°C to 100°C	1°C/s ~ 4°C/s

\* The thickness of Solder should be controlled to be higher than 0.1 mm.

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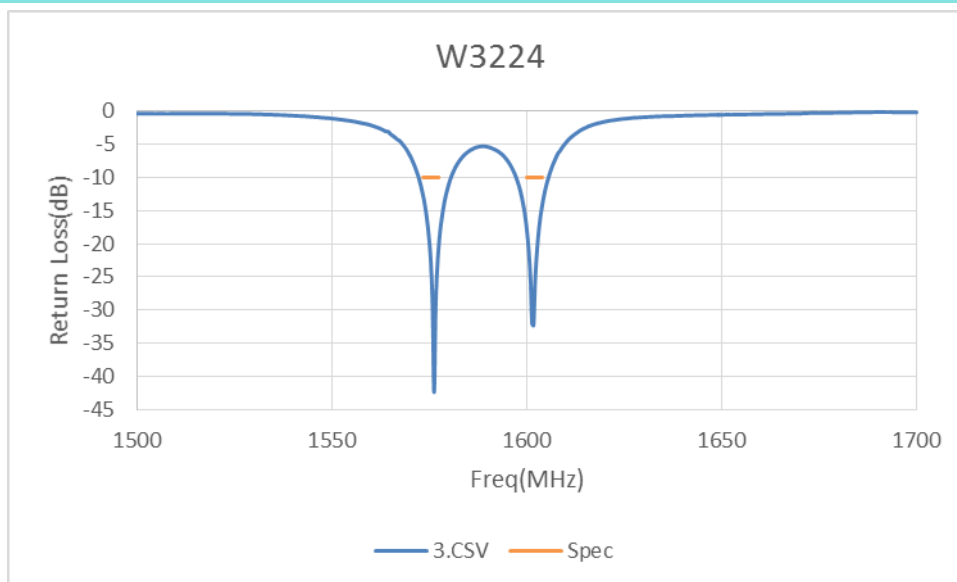
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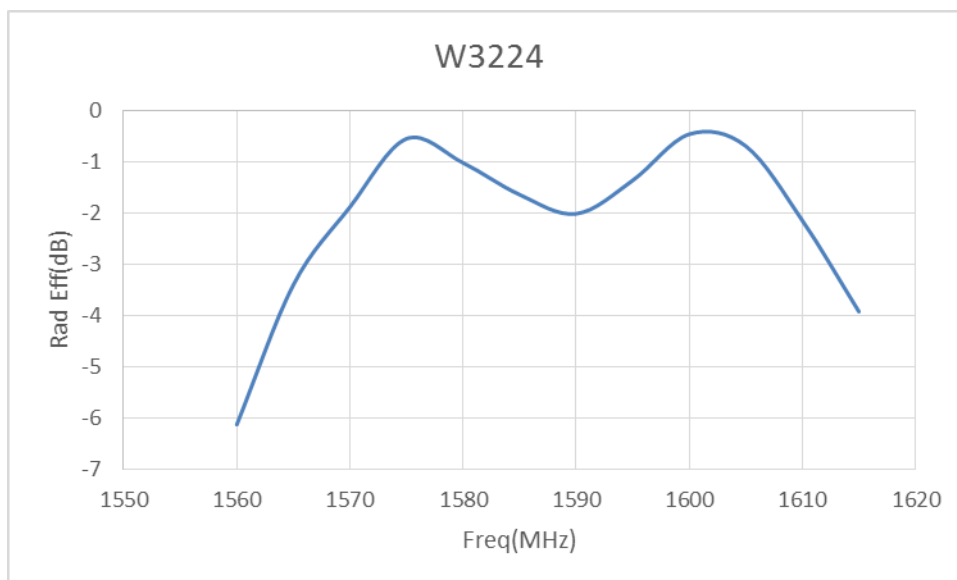
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## CHARTS



Return Loss



Total Radiation Efficiency

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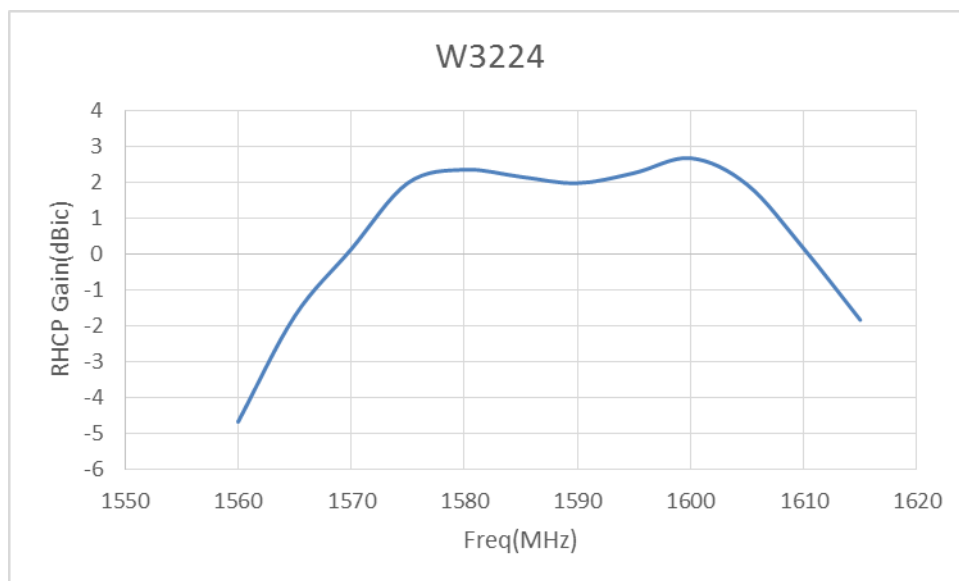
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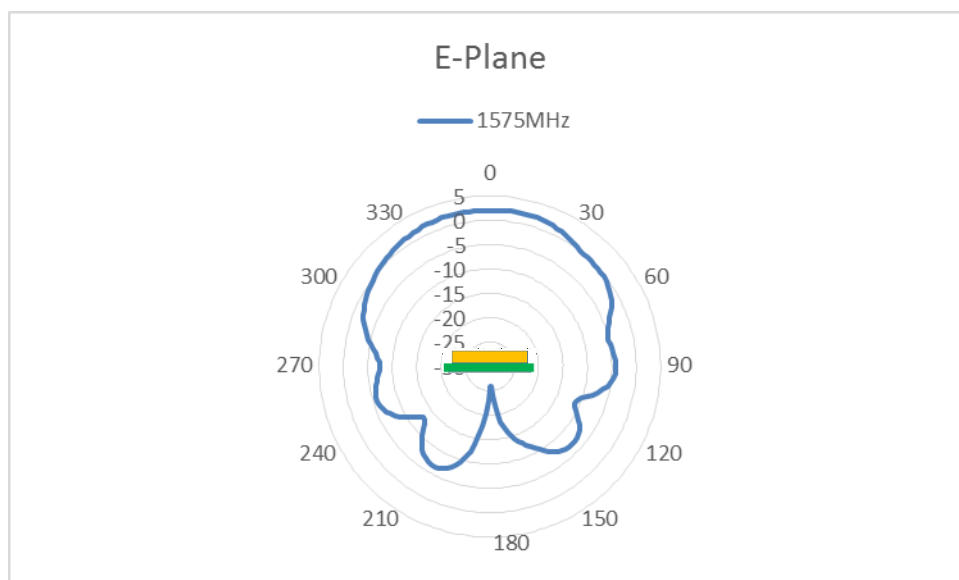
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## CHARTS



## Zenith RHCP Gain



GPS Radiation pattern on 70mmX70mm metal plane

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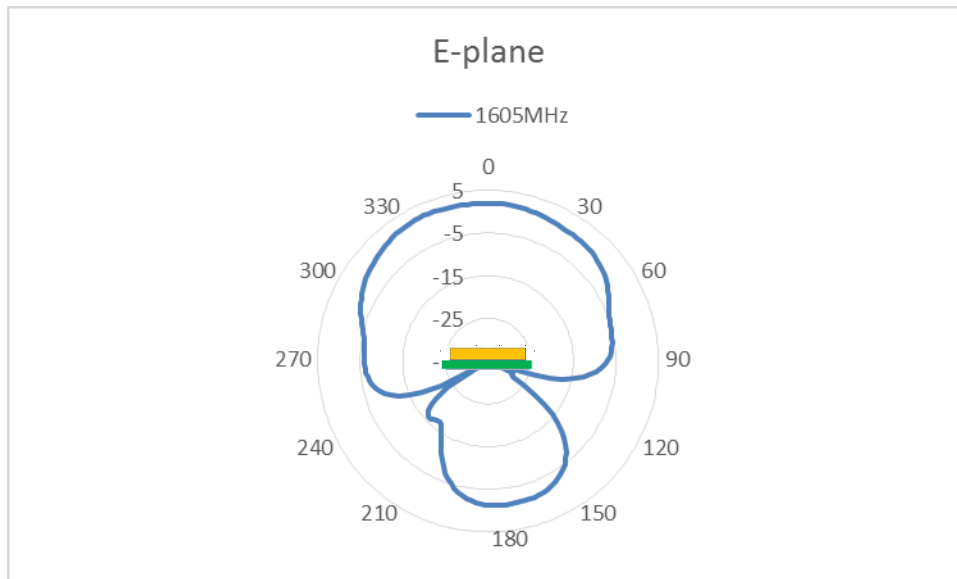


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## CHARTS



Glonass Radiation pattern on 70mmX70mm metal plane

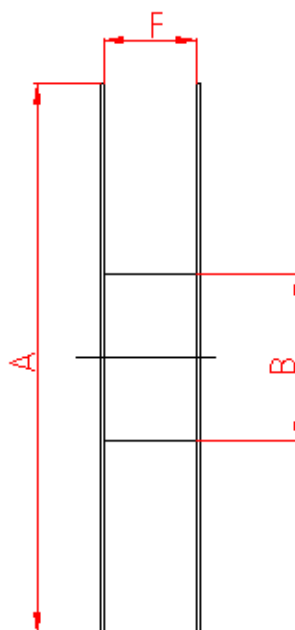
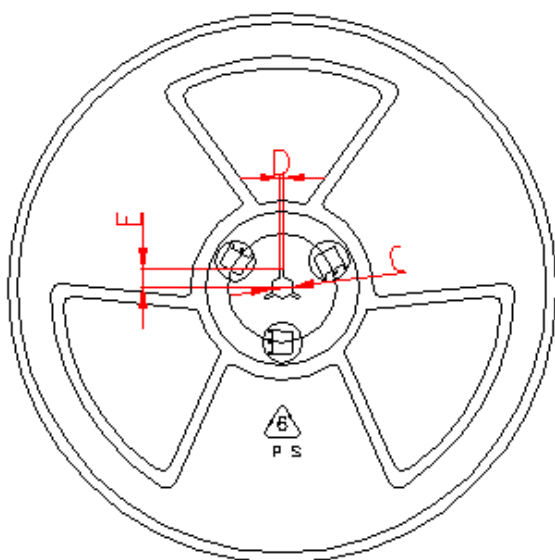
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## PACKAGING

Tape packing  
300PCS/reel



A	B	C	D	E	F
±2.0	±4.0	±0.2	±0.2	±2.0	±2.0
330	100	13.2	2	10.75	32.4

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