

### Commercial 12mm Diameter Carbon Composition Rotary Potentiometer

#### Features

- Miniature 12mm size
- Low cost
- Snap-in bracket for PC board mounting
- Detent available
- Insulated shaft available
- RoHS compliant



### Electrical and Mechanical Specifications

#### Resistance Range

500 ohms through 1 Megohms

#### Resistance Tolerance

±30%, ±20%, ±10%

#### Power Rating

0.15 watts @ 50°C

#### Dielectric Strength

500 VDC for 1 minute

#### Maximum Operating Voltage

350 VDC

#### Insulation Resistance

100 Megohms minimum @ 250 VDC

#### Rotational Angle

Mechanical angle: 300°  
Effective angle: 280°

#### Rotational Torque

20 – 216 gf-cm

#### Stop Strength

5.76 kg-cm minimum (VR without detent)  
3 kg-cm minimum (VR with detent)

#### Mounting Information

P.C. board mounting  
Type "X": Shaft parallel to P.C. board  
Type "U": Shaft vertical to P.C. board  
Type "H": Same as "X" except hook terminals

#### Detent

Detent @ 50% rotation

#### Push-Pull strength on shaft

8 kg for 10 seconds

#### Rotational life

10K cycles

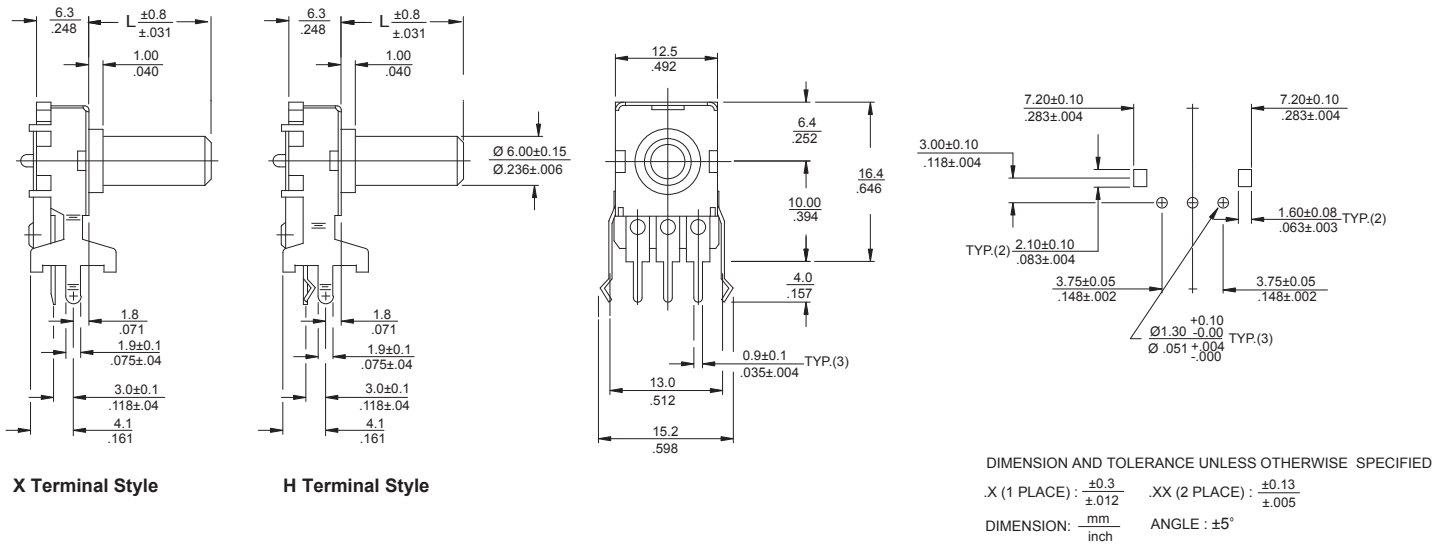
#### Operating temperature

-10°C ~ 80°C

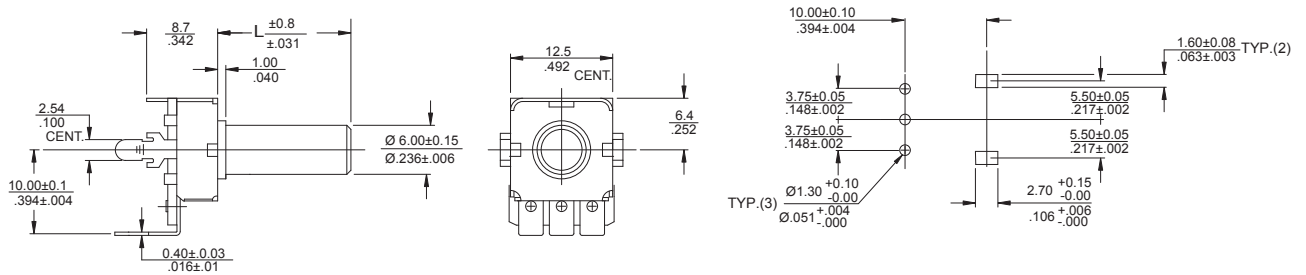
#### Solder Heat Resistance

260°C for 5 seconds

## XM 296RE/ HM 296RE Molded Shaft, Shaft Parallel to P.C. Board



## UM 296RE Molded Shaft, Shaft Perpendicular to P.C. Board



## Ordering Information

**296**      **X**      **B**

**252**      **B**      **2**      **N**

TERMINAL STYLE	
X	PC
U	PC FORMED TO REAR
H	HOOK

RESISTANCE CODE EXAMPLES	
CODE	RESISTANCE
501	500 OHMS
102	1K
252	2.5K
502	5K
103	10K
253	25K
503	50K
104	100K

RESIST TOL	
A	$\pm 10\%$
B	$\pm 20\%$
C	$\pm 30\%$

DETENT	
N	NO DETENT
C	CENTER DETENT

SHAFTS AVAILABLE	
(ALL SHAFTS .236" Dia. (6.0mm) except "E" - Diameter is .240" (6.1mm))	
LENGTH BEYOND	
COVER	TRIM
A - .640" (16.3mm)	FLATTED .472" X .177" (12X4.5mm)
B - .840" (21.3mm)	FLATTED .472" X .177" (12X4.5mm)
C - 1.031" (26.2mm)	FLATTED .472" X .177" (12X4.5mm)
D - .540" (13.7mm)	KNURLED .287" X 18T (7.3mm X 18T)
E - .265" (6.7mm)	FLATTED .218" X .204" (5.5 X 5.2mm)
F - .640" (16.3mm)	FLATTED .276" X .177" (7X4.5mm)
G - .717" (18.2mm)	FLATTED .276" X .177" (7X4.5mm)
H - 1.035" (26.3mm)	FLATTED .276" X .177" (7X4.5mm)

TAPER	
1	LINEAR
2	10% AUD
3	10% CCW AUD