



# THE DATASHEET OF MJTP1230A

# MJTP/PHAP33 series

6mm Square tact switches •  
Through hole



## DISTINCTIVE FEATURES

- Numerous single pole / single throw momentary configurations
- Excellent tactile feedback (snap dome)
- Ultra compact size
- Long operating life for high reliability
- Molded-in terminals minimizing wicking of flux or solder



## ENVIRONMENTAL SPECIFICATIONS

- Operating Temperature: -20 °C to +70 °C (-4°F to +158 °F)
- Storage Temperature: -30 °C to +80 °C (-22 °F to +176 °F) for 96 hours
- Wave soldering: 255 °C for 5 seconds max
- Manual soldering: 300 °C for 3 seconds max



## ELECTRICAL SPECIFICATIONS

- Contact rating: 50 mA 12VDC
- Contact Resistance: 100 mΩ - 500 mΩ max. depending on series
- Insulation Resistance: 100 MΩ min. at 100VDC
- Dielectric withstanding voltage: 250 VAC / 1 minute
- Electrical life: 50,000 - 100,000 cycles min. depending on series
- Contact bounce: Less than 10 msec.



## MECHANICAL SPECIFICATIONS

- Operating force: 160 gf ±30gf
- Mechanical life:
  - 100,000 cycles min.
- Plunger travel: 0.25 +0.2, -0.1mm (0.010 +.008, .004")



## MATERIALS

- Body: Thermoplastic
- Contact: Phosphor bronze or stainless steel with silver plating
- Cover: PET film, tin plated brass or Stainless Steel
- Terminals: Silver plated brass
- Actuator: Thermoplastic
- LED rating: Forward voltage 2.1 (3.0V max.)  
Cont. forward current 20mA max at 25°C

# MJTP/PHAP33 series

6mm Square tact switches • through hole

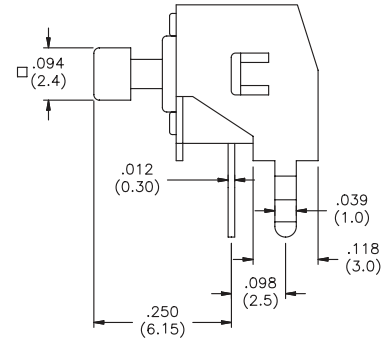
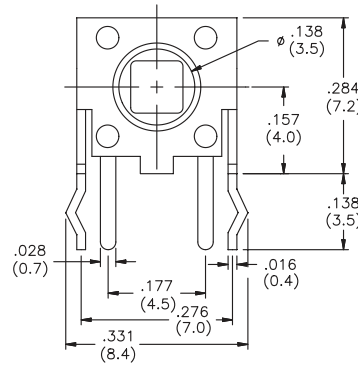
MJTP1105T  
PHAP3305T

Right angle, grounding,  
edge of PCB mounting

Bulk packaging



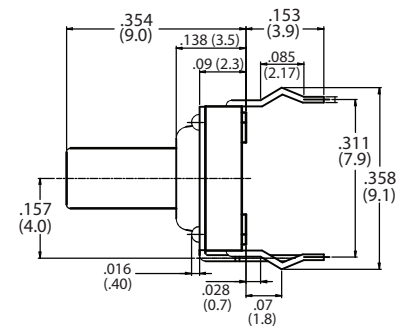
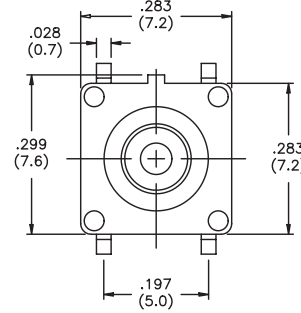
Caps available:  
See end of section



MJTP1109A  
PHAP3350A

Process compatible,  
grounding

Bulk packaging

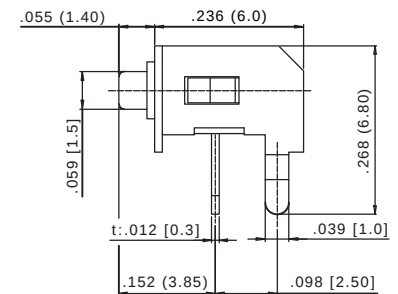
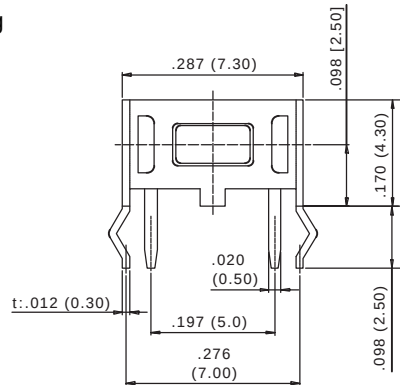


MJTP1117  
PHAP3363

Right angle, grounding

Bulk packaging

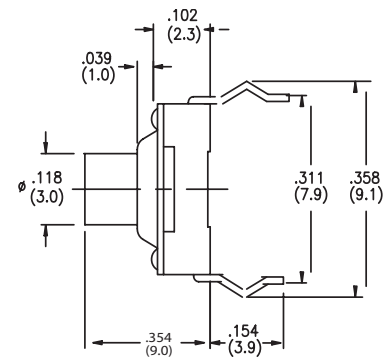
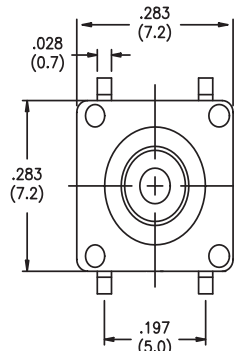
**Actuation Force:**  
180gf +/-50g



MJTP1119A  
PHAP3351A

Process compatible

Bulk packaging



# MJTP/PHAP33 series

6mm Square tact switches • through hole

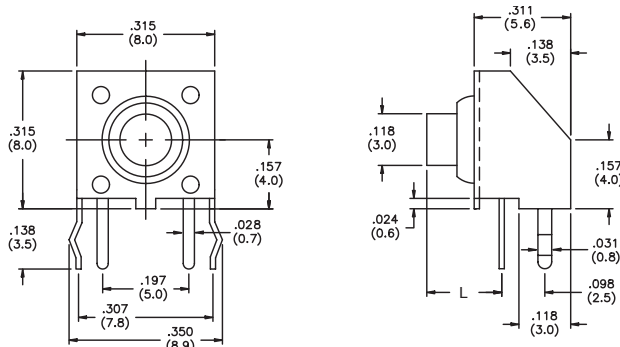
MJTP1129  
PHAP3352

Right angle, grounding  
process compatible

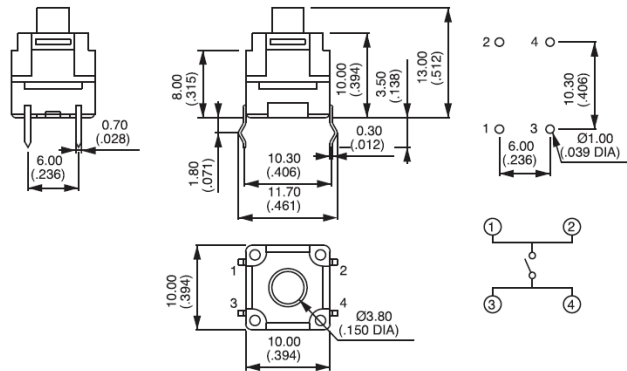
Bulk packaging



| Model #   | Dimensions<br>L (in/mm) |
|-----------|-------------------------|
| MJTP1129  | .171 (4.35)             |
| MJTP1129A | .329 (8.35)             |
| MJTP1129B | .486 (12.35)            |



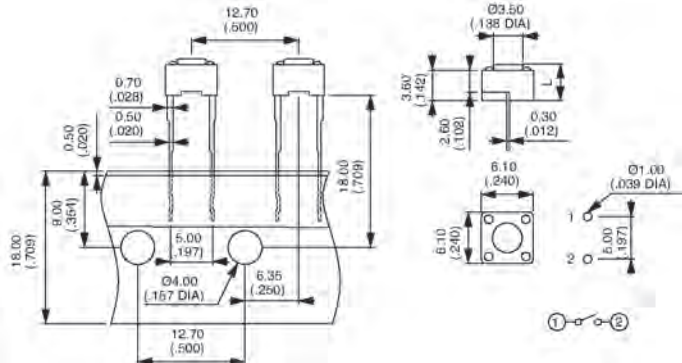
PHAP3353



PHAP3307



| Model #   | Dimensions<br>L (in/mm) |
|-----------|-------------------------|
| PHAP3307  | .169 (4.3)              |
| PHAP3307A | .197 (5.00)             |
| PHAP3307G | .276 (7.00)             |



MJTP11936  
PHAP3308R  
MJTP11933  
PHAP3308G

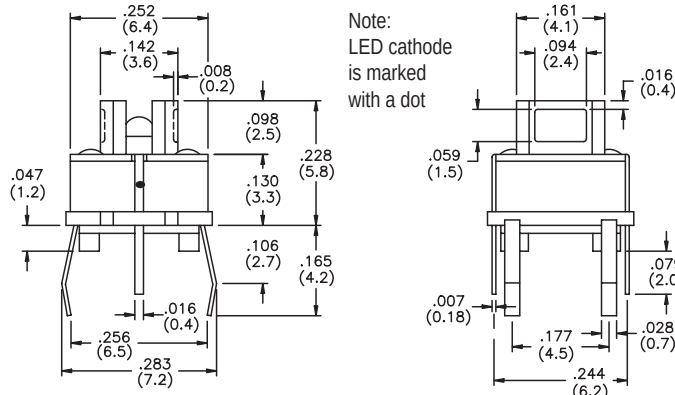
With LED

Bulk packaging

Caps available:  
See end of section



| Model #                | LED color |
|------------------------|-----------|
| MJTP11936<br>PHAP3308R | Red       |
| MJTP11933<br>PHAP3308G | Green     |



# MJTP/PHAP33 series

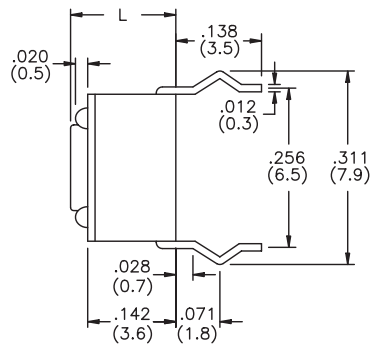
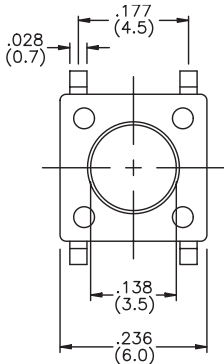
6mm Square tact switches • through hole

MJTP1230  
PHAP3301



Bulk packaging

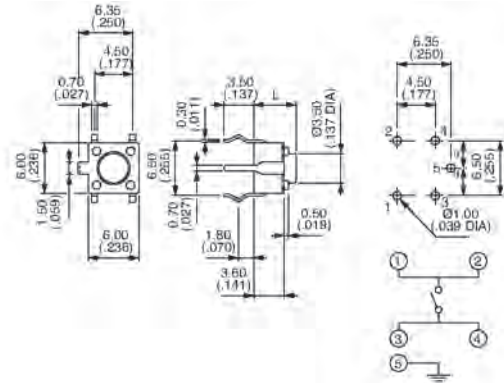
| Model #                | Dimensions<br>L (in/mm) |
|------------------------|-------------------------|
| MJTP1230<br>PHAP3301   | .170 (4.3)              |
| MJTP1230A<br>PHAP3301A | .197 (5.0)              |
| MJTP1230B<br>PHAP3301B | .374 (9.5)              |
| MJTP1230C<br>PHAP3301C | .315 (8.0)              |
| MJTP1230D<br>PHAP3301D | .512 (13.0)             |
| MJTP1230G<br>PHAP3301G | .275 (7.0)              |



PHAP3302



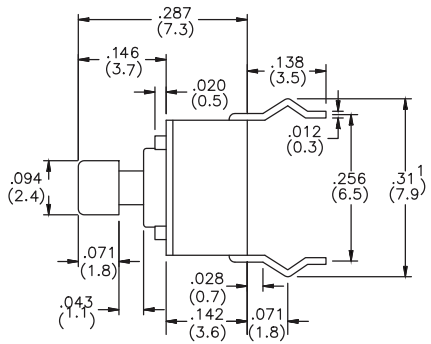
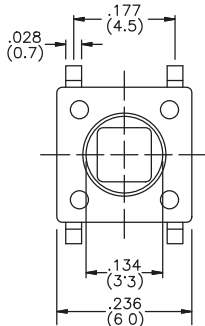
| Model #   | Dimensions<br>L (in/mm) | Actuator<br>color |
|-----------|-------------------------|-------------------|
| PHAP3302  | .170(4.3)               | black             |
| PHAP3302A | .197(5.0)               | black             |
| PHAP3302B | .374(9.5)               | black             |
| PHAP3302C | .315(8.0)               | white             |
| PHAP3302D | .512(13.0)              | black             |
| PHAP3302E | .275(7.3)               | ivory             |



MJTP1234  
PHAP3303



Bulk package

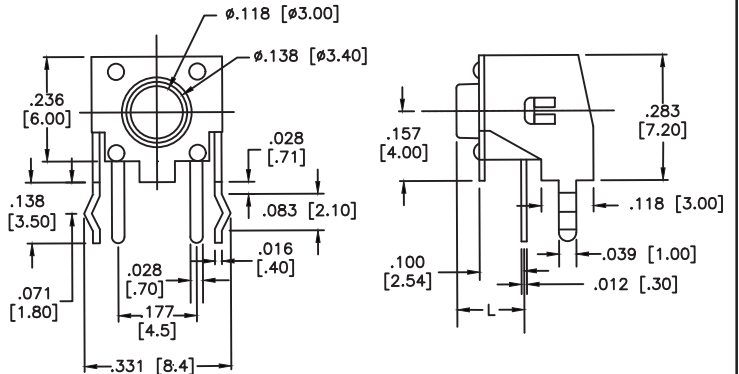


MJTP1236  
PHAP3305



Right angle, grounding  
Bulk packaging

| Model #                | Dimensions<br>L (in/mm) |
|------------------------|-------------------------|
| MJTP1236<br>PHAP3305   | .124 (3.1)              |
| MJTP1236A<br>PHAP3305A | .152 (3.9)              |
| MJTP1236F<br>PHAP3305F | .289 (7.3)              |
| MJTP1230G<br>PHAP3305G | .230 (5.8)              |

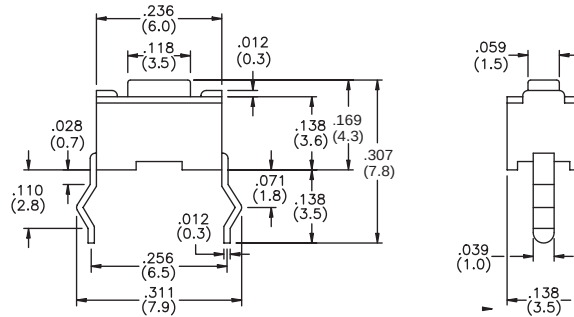


# MJTP/PHAP33 series

6mm Square tact switches • through hole

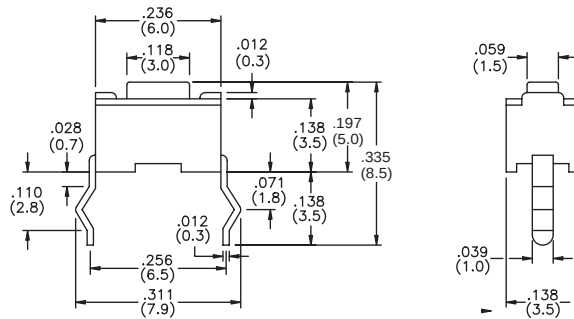
MJTP1243  
PHAP3362

Bulk packaging



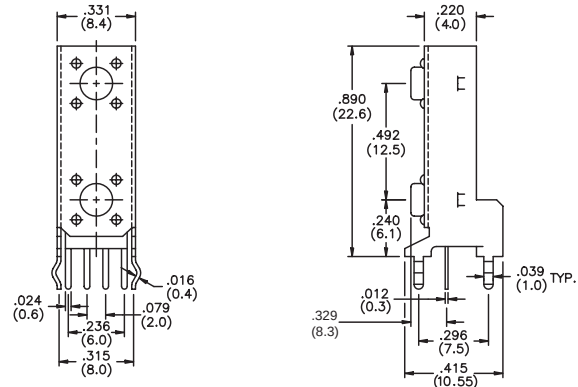
MJTP1250  
PHAP3362A

Bulk packaging



MJTP2205B  
PHAP3306

Bulk package



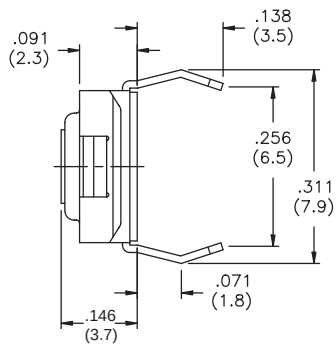
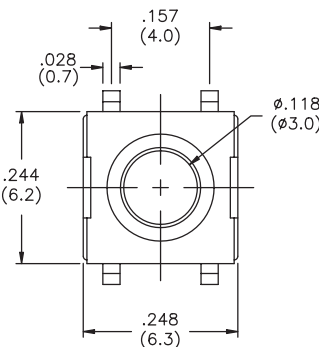
# MJTP/PHAP33 series

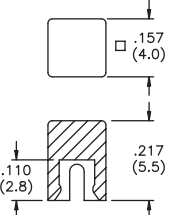
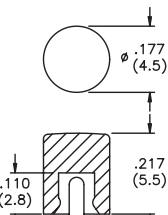
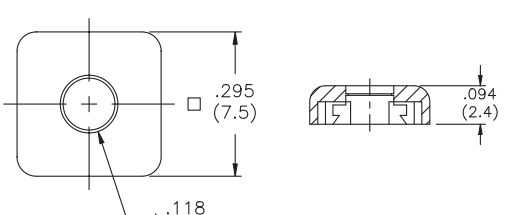
6mm Square tact switches • through hole

MJTPSHWB

Process compatible

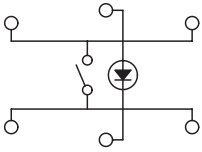
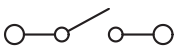
Bulk packaging

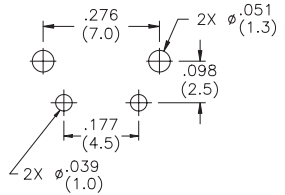
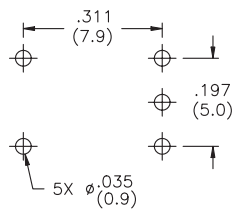
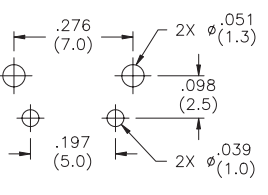
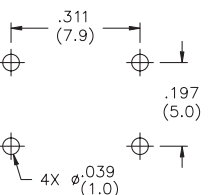
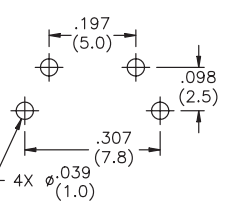
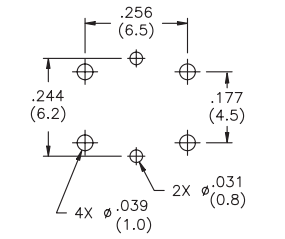
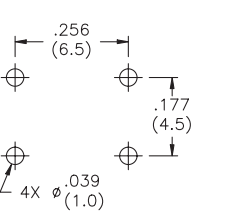
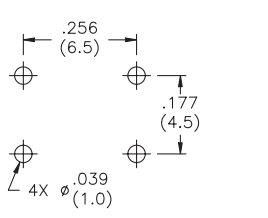
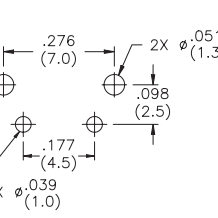
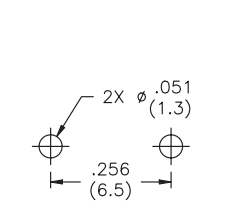
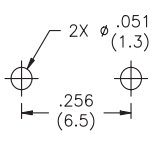
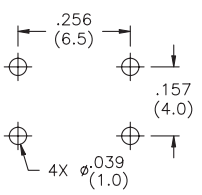
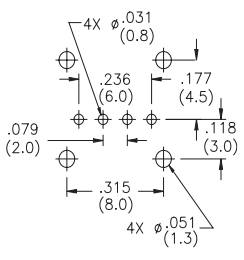


| CAPS<br>(for MJTP1105T/PHAP3305T<br>and MJTP1234/PHAP3303 only)                                                    |                                                                                                                   | CAPS<br>(for MJTP1193 / PHAP3308 only)                                                                                                                       | CAP COLORS                                                                                                                                                                                                                                                                                                                                                                    |     |       |   |      |   |       |   |       |   |        |   |     |   |       |
|--------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|-------|---|------|---|-------|---|-------|---|--------|---|-----|---|-------|
| <p>MJ61/U552<br/>Square cap</p>  | <p>MJ62/U553<br/>Round cap</p>  | <p>MJ3 Square cap with clear lens in<br/>center for LED illumination</p>  | <p>Note: add digit from table to<br/>cap part number for color.<br/>Example: MJ612 indicates<br/>square black cap.</p> <table><tr><th>No.</th><th>Color</th></tr><tr><td>1</td><td>Blue</td></tr><tr><td>2</td><td>Black</td></tr><tr><td>3</td><td>Green</td></tr><tr><td>5</td><td>Yellow</td></tr><tr><td>6</td><td>Red</td></tr><tr><td>7</td><td>Ivory</td></tr></table> | No. | Color | 1 | Blue | 2 | Black | 3 | Green | 5 | Yellow | 6 | Red | 7 | Ivory |
| No.                                                                                                                | Color                                                                                                             |                                                                                                                                                              |                                                                                                                                                                                                                                                                                                                                                                               |     |       |   |      |   |       |   |       |   |        |   |     |   |       |
| 1                                                                                                                  | Blue                                                                                                              |                                                                                                                                                              |                                                                                                                                                                                                                                                                                                                                                                               |     |       |   |      |   |       |   |       |   |        |   |     |   |       |
| 2                                                                                                                  | Black                                                                                                             |                                                                                                                                                              |                                                                                                                                                                                                                                                                                                                                                                               |     |       |   |      |   |       |   |       |   |        |   |     |   |       |
| 3                                                                                                                  | Green                                                                                                             |                                                                                                                                                              |                                                                                                                                                                                                                                                                                                                                                                               |     |       |   |      |   |       |   |       |   |        |   |     |   |       |
| 5                                                                                                                  | Yellow                                                                                                            |                                                                                                                                                              |                                                                                                                                                                                                                                                                                                                                                                               |     |       |   |      |   |       |   |       |   |        |   |     |   |       |
| 6                                                                                                                  | Red                                                                                                               |                                                                                                                                                              |                                                                                                                                                                                                                                                                                                                                                                               |     |       |   |      |   |       |   |       |   |        |   |     |   |       |
| 7                                                                                                                  | Ivory                                                                                                             |                                                                                                                                                              |                                                                                                                                                                                                                                                                                                                                                                               |     |       |   |      |   |       |   |       |   |        |   |     |   |       |

# MJTP/PHAP33 series

6mm Square tact switches • through hole

| SCHEMATICS                                                             |                                                                       |                                                              |                                                                                     |
|------------------------------------------------------------------------|-----------------------------------------------------------------------|--------------------------------------------------------------|-------------------------------------------------------------------------------------|
| MJTP1109<br>PHAP3350A<br>MJTP1119<br>PHAP3351A<br>MJTP1193<br>PHAP3308 | MJTP1230<br>PHAP3301<br>MJTP1234<br>PHAP3303<br>MJTP2205<br>PHAP3306  | MJTPSHW<br><br>Note: LED is for<br>MJTP1193/PHAP3308<br>only |    |
| MJTP1105<br>PHAP3305<br>MJTP1117<br>PHAP3363<br>MJTP1129<br>PHAP3352   | MJTP1236<br>PHAP3305<br>MJTP1243<br>PHAP3362<br>MJTP1250<br>PHAP3362A | MJTP2205<br>PHAP3306                                         |  |

| PRINTED CIRCUIT BOARD LAYOUTS                                                                                     |                                                                                                                 |                                                                                                                    |                                                                                                                   |                                                                                                                   |
|-------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------|
|  <p>MJTP1105T<br/>PHAP3305T</p>  |  <p>MJTP1109<br/>PHAP3350A</p> |  <p>MJTP1117<br/>PHAP3363</p>     |  <p>MJTP1119<br/>PHAP3351A</p> |  <p>MJTP1129<br/>PHAP3352</p>  |
|  <p>MJTP1193<br/>PHAP3308</p>   |  <p>MJTP1230<br/>PHAP3301</p> |  <p>MJTP1234<br/>PHAP3303</p>    |  <p>MJTP1236<br/>PHAP3305</p> |  <p>MJTP1243<br/>PHAP3362</p> |
|  <p>MJTP1250<br/>PHAP3362A</p> |  <p>MJTPSHW</p>              |  <p>MJTP2205<br/>PHAP3306</p> |                                                                                                                   |                                                                                                                   |



## Looking for pricing, stock, or lifecycle information?

Click below to explore more details on WIN SOURCE:

 [View MJTP1230A](#) on WIN SOURCE

 [Apem Inc.](#) Information

## Optimize Your Supply Chain with WIN SOURCE Solutions

-  Global Sourcing Solution
-  Obsolete Management
-  Cost Control Management
-  Shortage Management
-  Alternative Solution
-  Excess Inventory Management