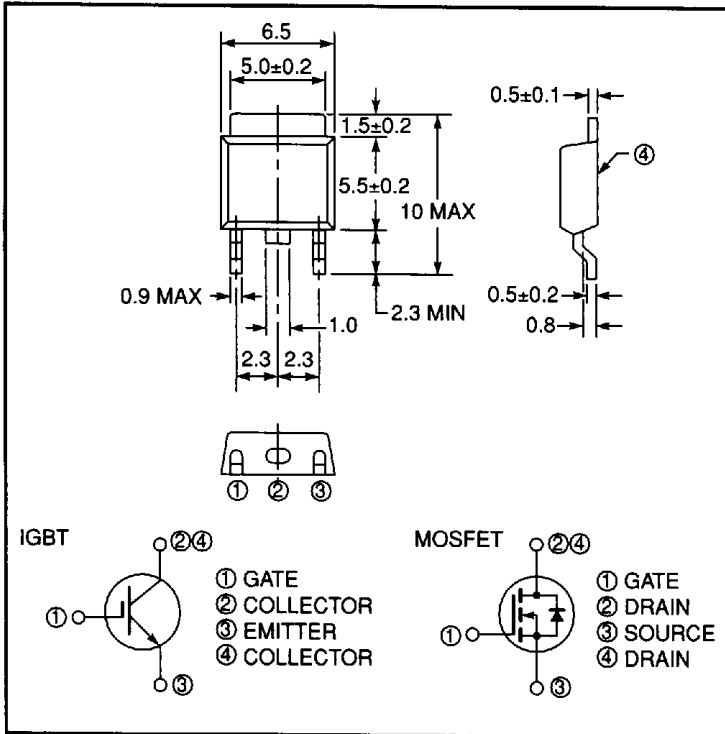


**Discrete MOSFET - High Voltage (continued)**  
**FS-IV Series MOSFETs (900V)**

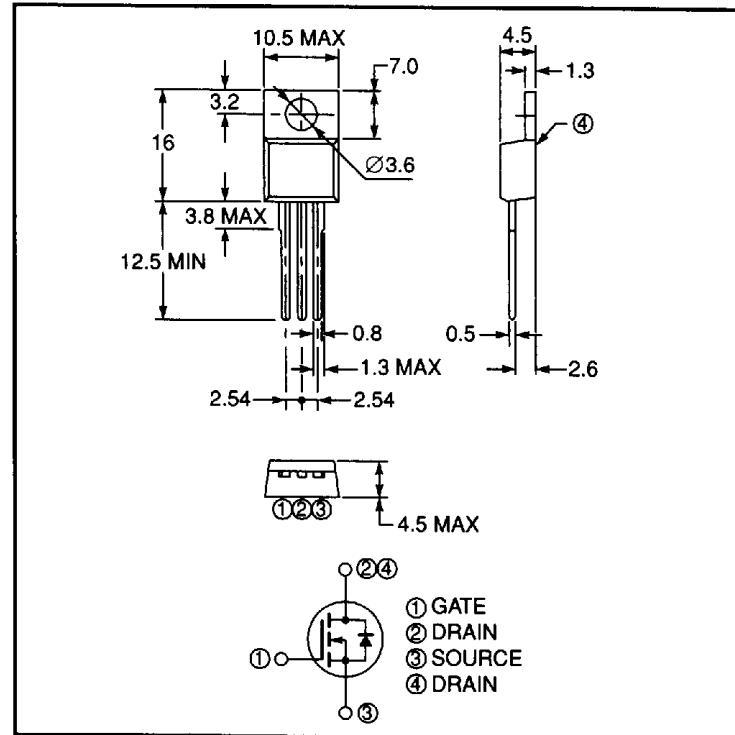
| Device Number | Maximum Ratings, T <sub>c</sub> = 25°C |                    |                    |                              |                      | Electrical Characteristics |      |                         |                       | Package  |      |
|---------------|--|--------------------|--------------------|------------------------------|----------------------|----------------------------|------|-------------------------|-----------------------|----------|------|
|               | V <sub>DSS</sub> (V)                   | I <sub>D</sub> (A) | P <sub>D</sub> (W) | R <sub>th(ch-c)</sub> (°C/W) | V <sub>GSS</sub> (V) | r <sub>DS(on)</sub> (Ω)    |      | V <sub>GS(th)</sub> (V) | C <sub>iss</sub> (pF) | Outline  | Page |
|               |  |                    |                    |                              |                      | Typ.                       | Max. |                         |                       |          |      |
| FS1AS-18A     | 900                                    | 1                  | 55                 | 2.27                         | ±30                  | 11.5                       | 15.0 | 3                       | 270                   | MP-3     | 31   |
| FS1UM-18A     | 900                                    | 1                  | 65                 | 1.92                         | ±30                  | 11.5                       | 15.0 | 3                       | 270                   | TO-220   | 31   |
| FS1VS-18A     | 900                                    | 1                  | 65                 | 1.92                         | ±30                  | 11.5                       | 15.0 | 3                       | 270                   | TO-220S  | 31   |
| FS1KM-18A     | 900                                    | 1                  | 25                 | 5.0                          | ±30                  | 11.5                       | 15.0 | 3                       | 270                   | TO-220FN | 31   |
| FS2UM-18A     | 900                                    | 2                  | 85                 | 1.47                         | ±30                  | 5.62                       | 7.30 | 3                       | 460                   | TO-220   | 31   |
| FS2VS-18A     | 900                                    | 2                  | 85                 | 1.47                         | ±30                  | 5.62                       | 7.30 | 3                       | 460                   | TO-220S  | 31   |
| FS2KM-18A     | 900                                    | 2                  | 30                 | 4.17                         | ±30                  | 5.62                       | 7.30 | 3                       | 460                   | TO-220FN | 31   |
| FS3UM-18A     | 900                                    | 3                  | 100                | 1.25                         | ±30                  | 3.08                       | 4.00 | 3                       | 770                   | TO-220   | 31   |
| FS3VS-18A     | 900                                    | 3                  | 100                | 1.25                         | ±30                  | 3.08                       | 4.00 | 3                       | 770                   | TO-220S  | 31   |
| FS3KM-18A     | 900                                    | 3                  | 30                 | 4.17                         | ±30                  | 3.08                       | 4.00 | 3                       | 770                   | TO-220FN | 31   |
| FS3SM-18A     | 900                                    | 3                  | 100                | 1.25                         | ±30                  | 3.08                       | 4.00 | 3                       | 770                   | TO-3P    | 32   |
| FS5UM-18A     | 900                                    | 5                  | 125                | 1.00                         | ±30                  | 2.15                       | 2.80 | 3                       | 1050                  | TO-220   | 31   |
| FS5VS-18A     | 900                                    | 5                  | 125                | 1.00                         | ±30                  | 2.15                       | 2.80 | 3                       | 1050                  | TO-220S  | 31   |
| FS5KM-18A     | 900                                    | 5                  | 30                 | 4.17                         | ±30                  | 2.15                       | 2.80 | 3                       | 1050                  | TO-220FN | 31   |
| FS5SM-18A     | 900                                    | 5                  | 125                | 1.00                         | ±30                  | 2.15                       | 2.80 | 3                       | 1050                  | TO-3P    | 32   |
| FS7UM-18A     | 900                                    | 7                  | 150                | 0.83                         | ±30                  | 1.54                       | 2.00 | 3                       | 1380                  | TO-220   | 31   |
| FS7VS-18A     | 900                                    | 7                  | 150                | 0.83                         | ±30                  | 1.54                       | 2.00 | 3                       | 1380                  | TO-220S  | 31   |
| FS7KM-18A     | 900                                    | 7                  | 40                 | 3.13                         | ±30                  | 1.54                       | 2.00 | 3                       | 1380                  | TO-220FN | 31   |
| FS7SM-18A     | 900                                    | 7                  | 150                | 0.83                         | ±30                  | 1.54                       | 2.00 | 3                       | 1380                  | TO-3P    | 32   |
| FS10SM-18A    | 900                                    | 10                 | 200                | 0.625                        | ±30                  | 0.93                       | 1.20 | 3                       | 2250                  | TO-3P    | 32   |
| FS10RM-18A    | 900                                    | 10                 | 70                 | 1.78                         | ±30                  | 0.93                       | 1.20 | 3                       | 2250                  | TO-3PF   | 33   |
| FS14SM-18A    | 900                                    | 14                 | 275                | 0.45                         | ±30                  | 0.63                       | 0.85 | 3                       | 2900                  | TO-3P    | 32   |

### MP-3



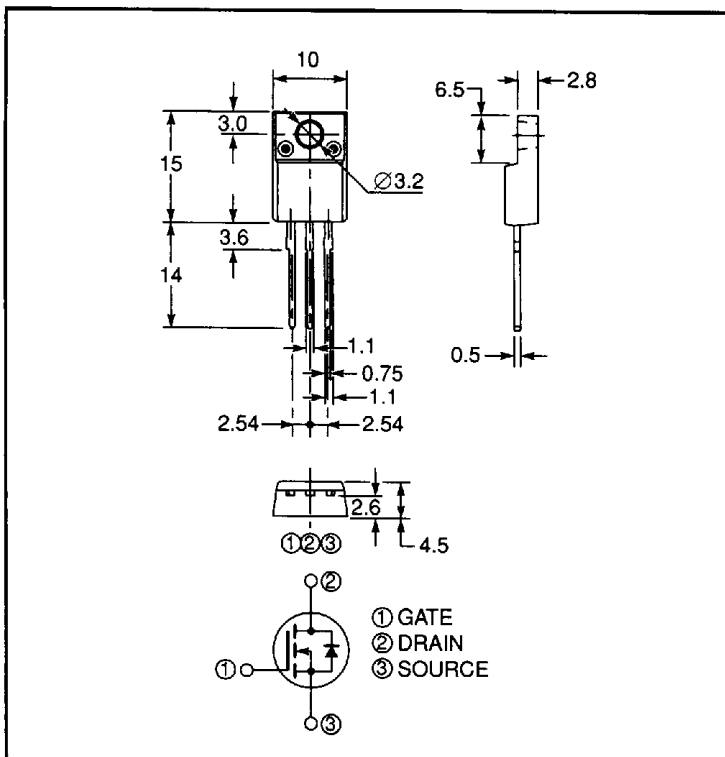
IGBT CT\*\*AS-8  
MOSFET FS\*\*AS-8

### TO-220



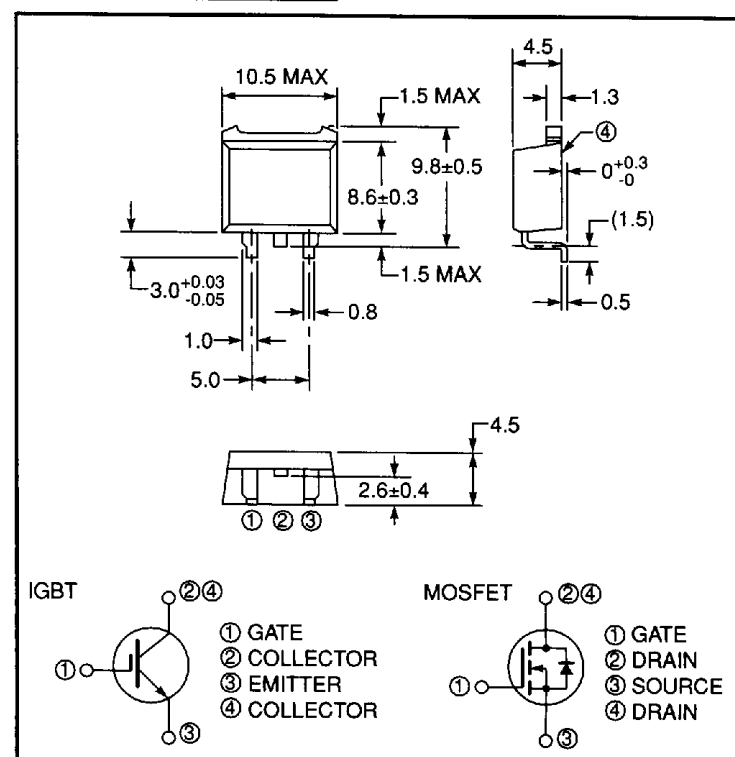
MOSFET FK\*\*UM-\*\*, FS\*\*UM-\*\*

### TO-220FN



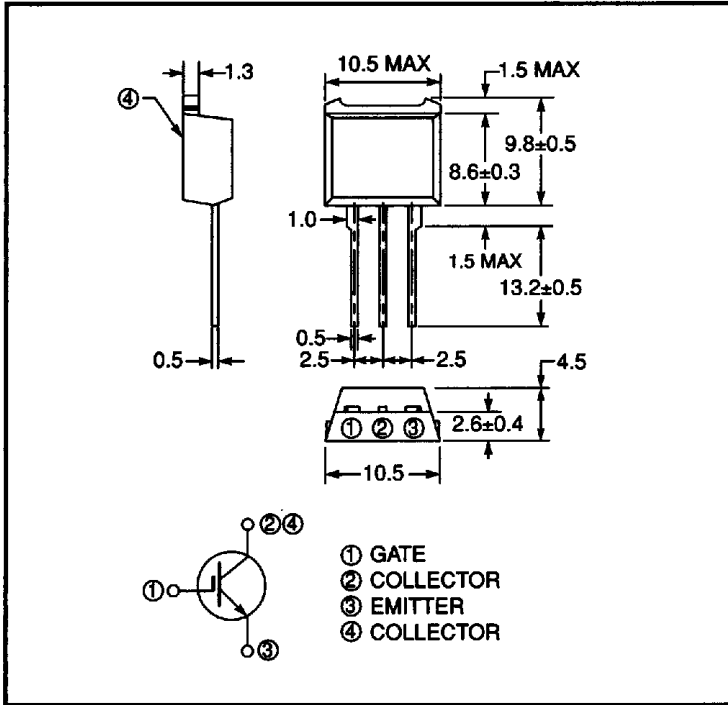
MOSFET FK\*\*KM-\*\*, FS\*\*KM-\*\*

### TO-220S



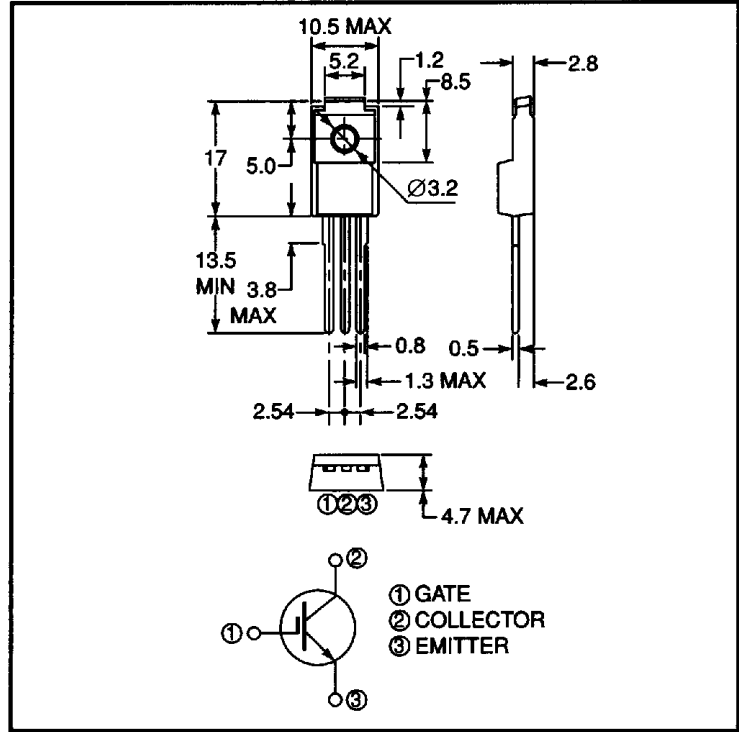
IGBT CT\*\*VS-8  
MOSFET FK\*\*VS-\*\*, FS\*\*VS-\*\*

### TO-220C



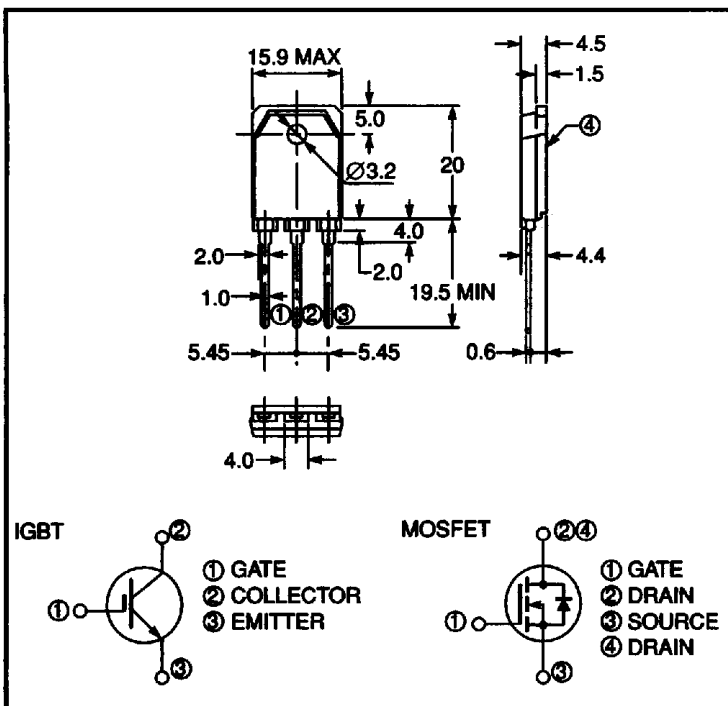
IGBT CT\*\*VM-8

### TO-220F



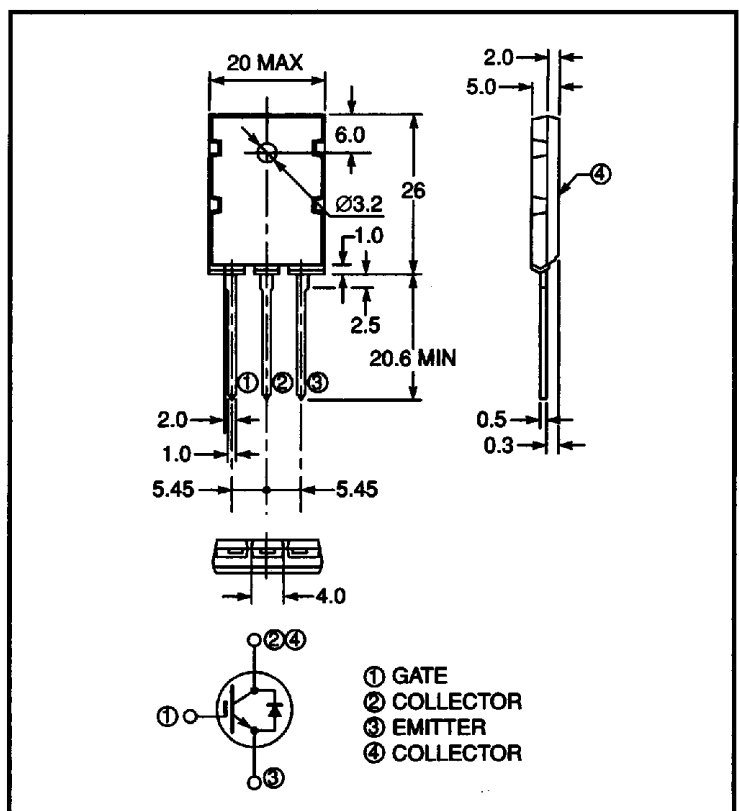
IGBT CT\*\*TM-\*\*

### TO-3P



IGBT CT\*\*SM-8  
MOSFET FK\*\*SM-\*\*, FS\*\*SM-\*\*

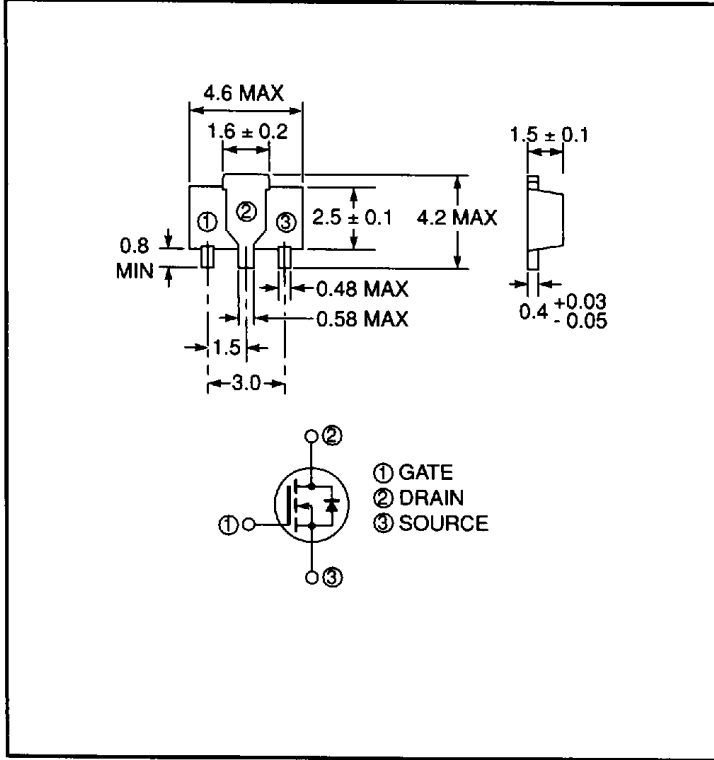
### TO-3PL



IGBT CT\*\*AM-\*\*

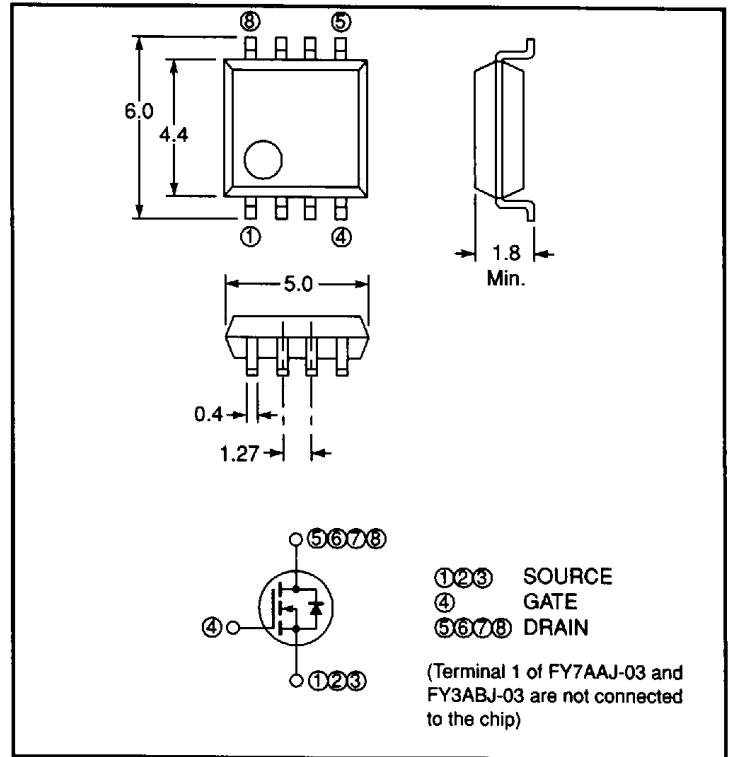
## Device Outline Drawings

### SOT-89



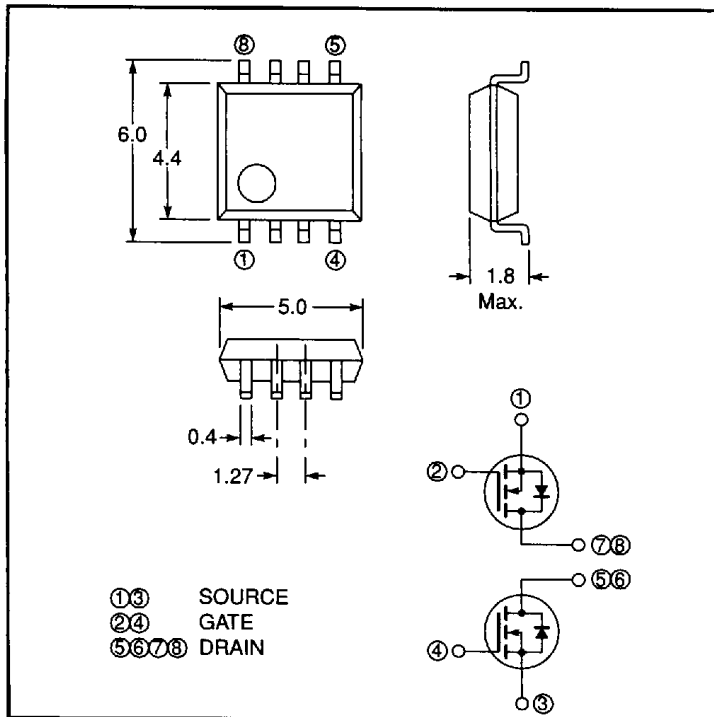
MOSFET FS\*\*, FX\*\*

### SOP-8 (Single)



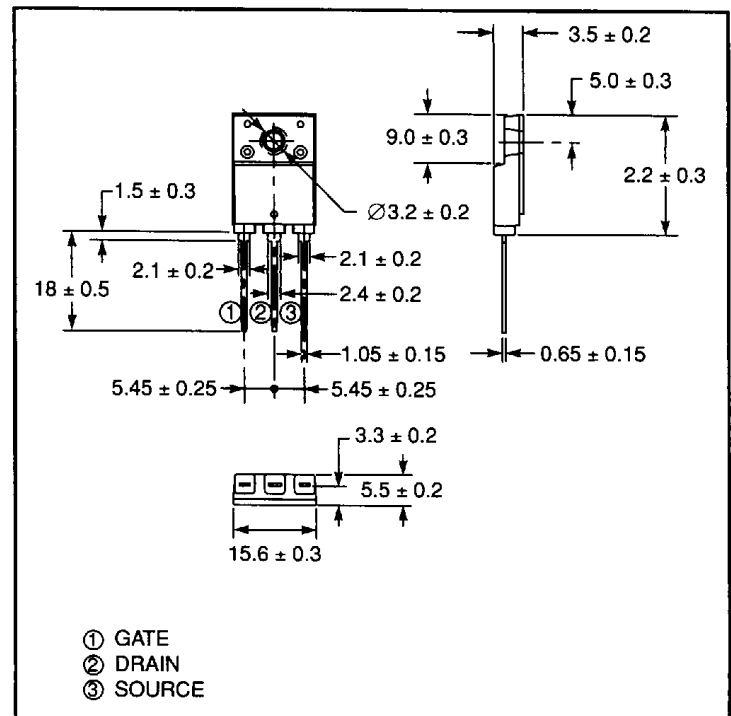
MOSFET FY\*\*

### SOP-8 (Dual)



MOSFET FY\*\*

### TO-3PF



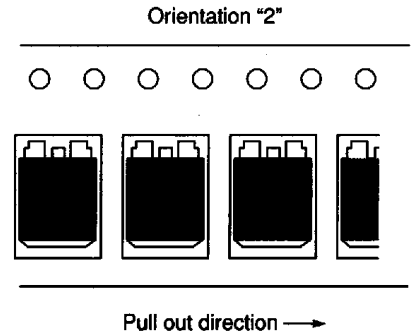
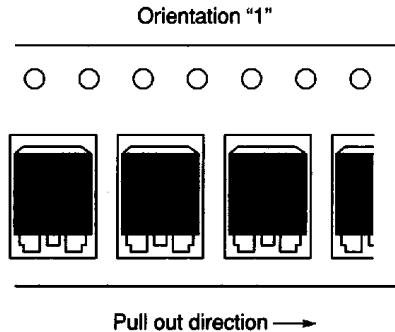
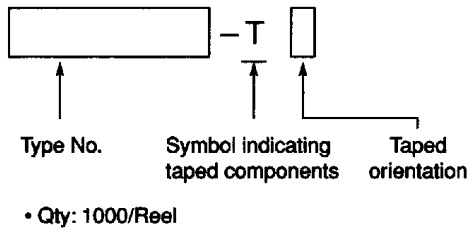
MOSFET FS\*\*RM\*\*

### MOSFET Packing Quantities and Types

| Package  | Outline Code | Packing | Minimum Quantity per Package |
|----------|--------------|---------|------------------------------|
| TO-220   | UM           | Bag     | 100                          |
| TO-220FN | KM           | Tube    | 50                           |
| TO-220S  | VS           | Bag     | 100                          |
| TO-220S  | VS           | Reel    | 1000                         |
| TO-3P    | SM           | Bag     | 20                           |
| MP-3     | AS           | Bag     | 500                          |
| MP-3     | AS           | Reel    | 3000                         |
| SOP-8    | FY           | Reel    | 3000                         |

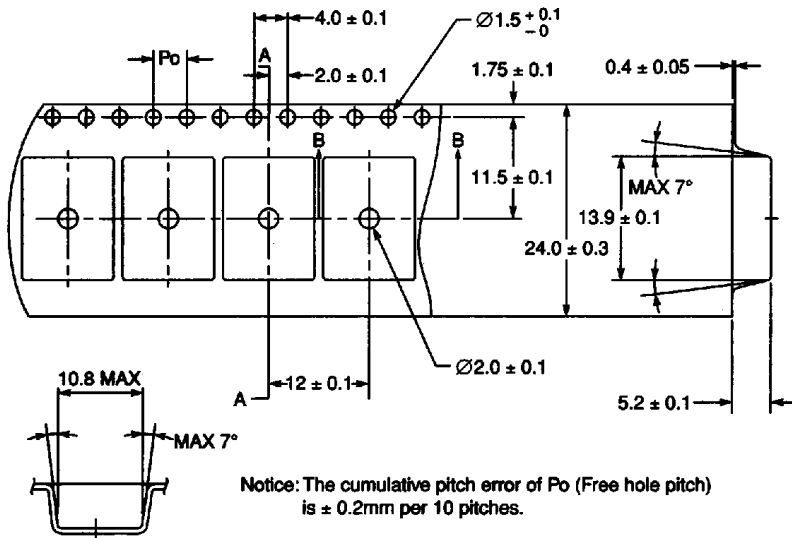
### TO-220S Taping

#### (a) Marking

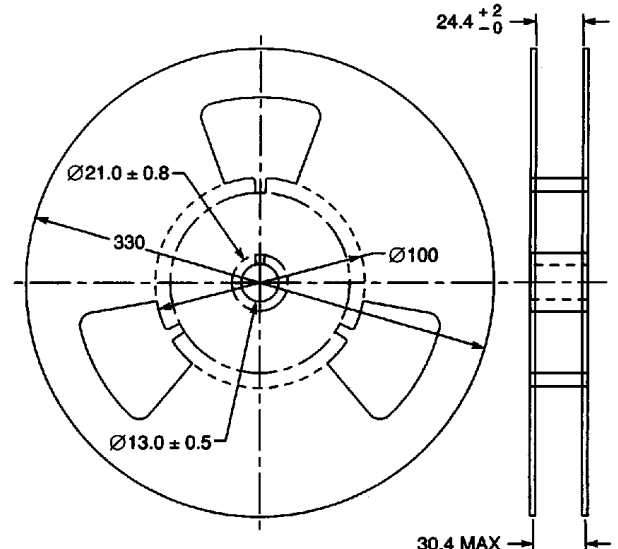


#### (b) Taping

##### • Tape Shape and Dimensions

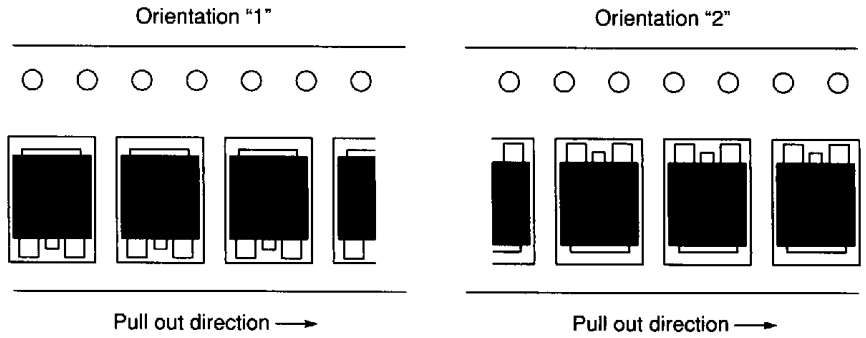
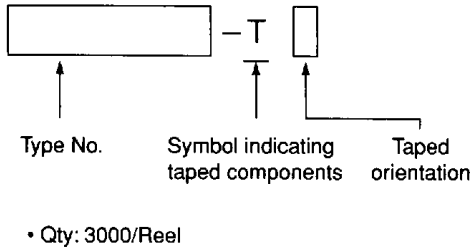


##### • Reel Shape and Dimensions



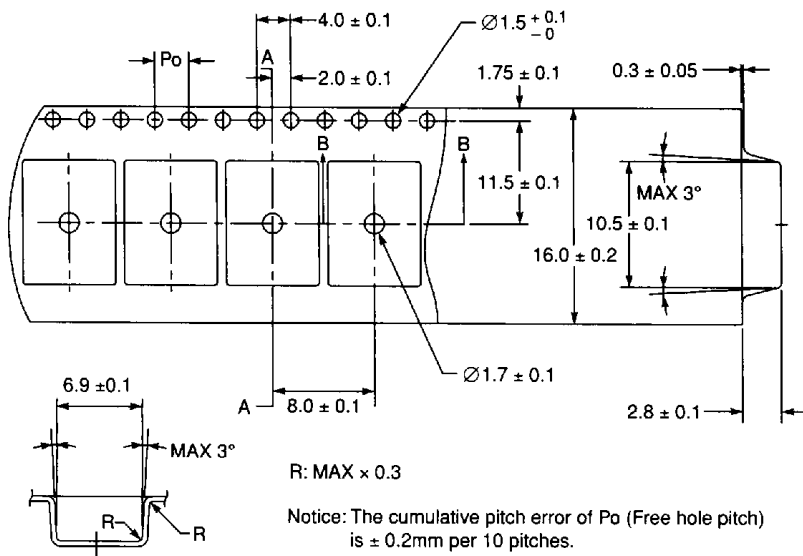
### MP-3 Taping

#### (a) Marking

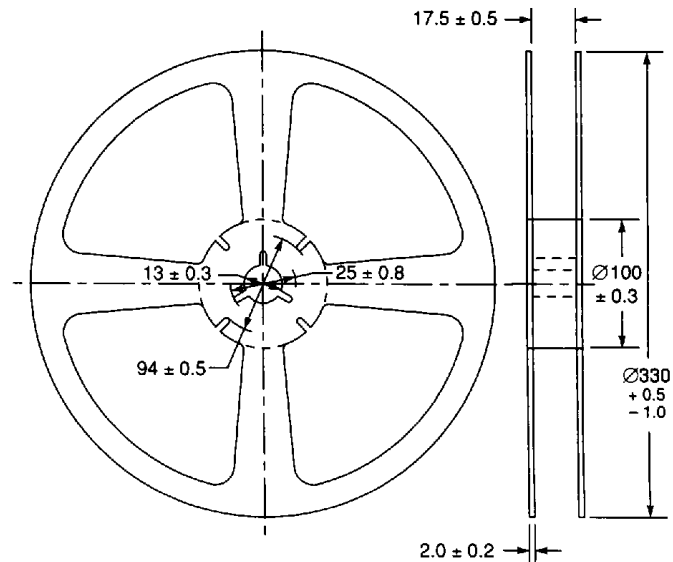


#### (b) Taping

##### • Tape Shape and Dimensions

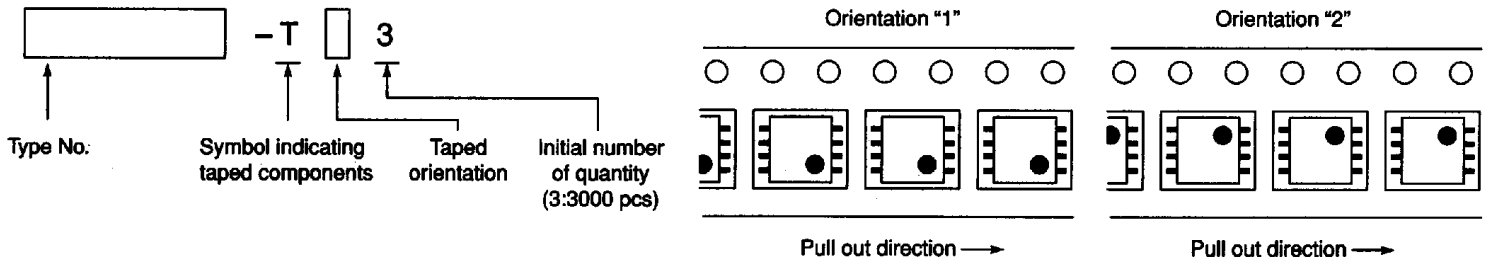


##### • Reel Shape and Dimensions



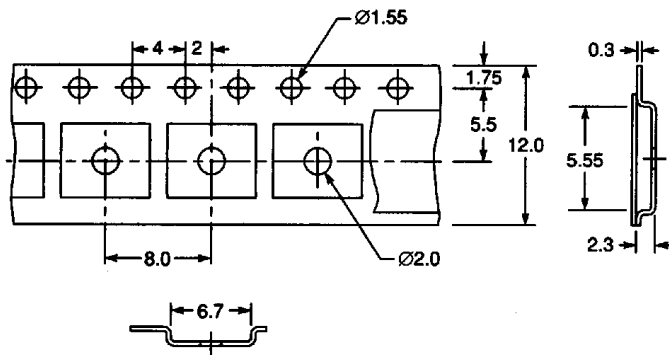
### SOP-8 Taping

#### (a) Marking

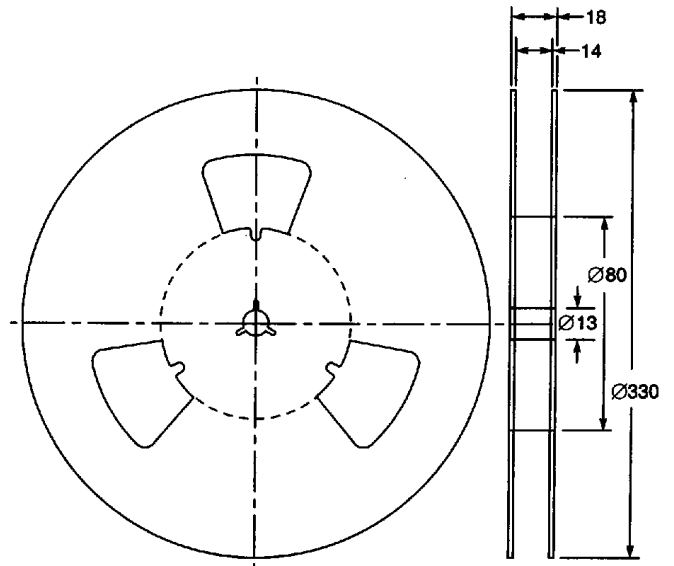


#### (b) Taping

- Tape Shape and Dimensions

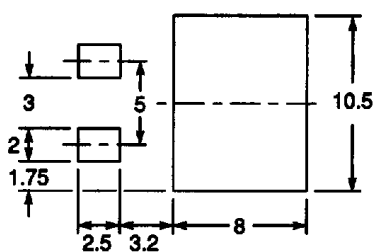


- Reel Shape and Dimensions

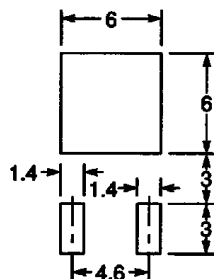


### Recommended Mounting Pad

#### TO-220S Package



#### MP-3 Package



#### SOP-8 Package

