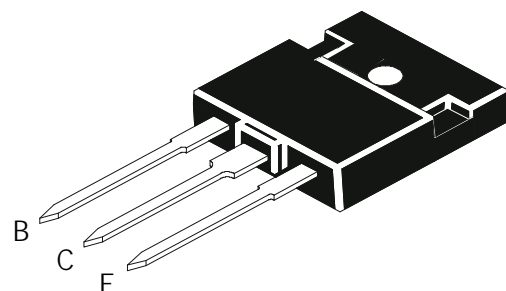


POWER TRANSISTORS



TIP2955F PNP
TIP3055F NPN

TO- 3P Fully Isolated
Plastic Package

Designed for General Purpose Switching and Amplifier Applications

ABSOLUTE MAXIMUM RATINGS

| DESCRIPTION | SYMBOL | VALUE | UNIT |
|---|----------------|--------------|---------------------|
| Collector-Emitter Voltage | V_{CEO} | 60 | V |
| Collector-Emitter Voltage | V_{CER} | 70 | V |
| Collector-Base Voltage | V_{CB} | 100 | V |
| Emitter-Base Voltage | V_{EB} | 7.0 | V |
| Collector Current - Continuous | I_C | 15 | A |
| Base Current | I_B | 7.0 | A |
| Total Power Dissipation upto $T_c=25^\circ\text{C}$ | P_D | 90 | W |
| Derate above 25°C | | 0.72 | W/ $^\circ\text{C}$ |
| Operating And Storage Junction Temperature Range | T_j, T_{stg} | - 65 to +150 | $^\circ\text{C}$ |

THERMAL RESISTANCE

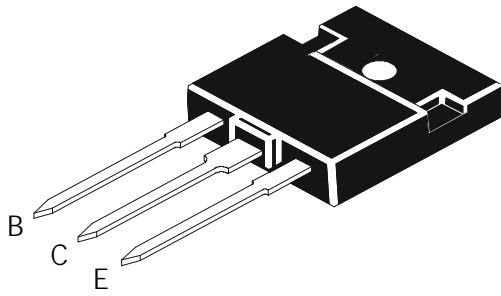
| | | | |
|--------------------------|--------------|------|--------------------|
| From Junction to case | $R_{th(jc)}$ | 1.39 | $^\circ\text{C/W}$ |
| From Junction to Ambient | $R_{th(ja)}$ | 35.7 | $^\circ\text{C/W}$ |

ELECTRICAL CHARACTERISTICS ($T_c=25^\circ\text{C}$ unless specified otherwise)

| DESCRIPTION | SYMBOL | TEST CONDITION | MIN | TYP | MAX | UNIT |
|--------------------------------------|------------------|---|-----------|-----|------------|------|
| Collector-Emitter Sustaining Voltage | $V_{CEO(sus)}^*$ | $I_C = 30\text{ mA}, I_B = 0$ | 60 | | | V |
| Collector Cutoff Current | I_{CER} | $V_{CE}=70\text{V}, R_{BE}=100\Omega$ | | | 1.0 | mA |
| Collector Cutoff Current | I_{CEO} | $V_{CE} = 30\text{ V}, I_B = 0$ | | | 0.7 | mA |
| Collector Cutoff Current | I_{CEV} | $V_{CE}=100\text{V}, V_{BE(off)} = 1.5\text{ V}$ | | | 5.0 | mA |
| Emitter Cutoff Current | I_{EBO} | $V_{BE} = 7.0\text{ V}, I_C = 0$ | | | 5.0 | mA |
| DC Current Gain | h_{FE}^* | $I_C = 4.0\text{ A}, V_{CE} = 4.0\text{ V}$ $I_C = 10\text{ A}, V_{CE} = 4.0\text{ V}$ | 20 5.0 | | 70 | |
| Collector-Emitter Saturation Voltage | $V_{CE(sat)}^*$ | $I_C = 4.0\text{ A}, I_B = 400\text{ mA}$ $I_C = 10\text{ A}, I_B = 3.3\text{ A}$ | | | 1.1 3.0 | V |
| Base-Emitter On Voltage | $V_{BE(on)}^*$ | $I_C = 4.0\text{ A}, V_{CE} = 4.0\text{ V}$ | | | 1.8 | V |

Second Breakdown

| | | | | | | |
|---|-----------|---|-----|--|--|---|
| Second Breakdown Collector Current with Base Forward Biased | $I_{S/b}$ | $V_{CE} = 30\text{ V}, t = 1.0\text{s},$ Nonrepetitive | 3.0 | | | A |
|---|-----------|---|-----|--|--|---|



TIP2955F PNP
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TO- 3P Fully Isolated
Plastic Package

ELECTRICAL CHARACTERISTICS ($T_c=25^{\circ}\text{C}$ unless specified otherwise)

Dynamic Characteristics

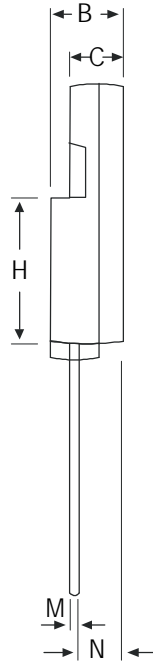
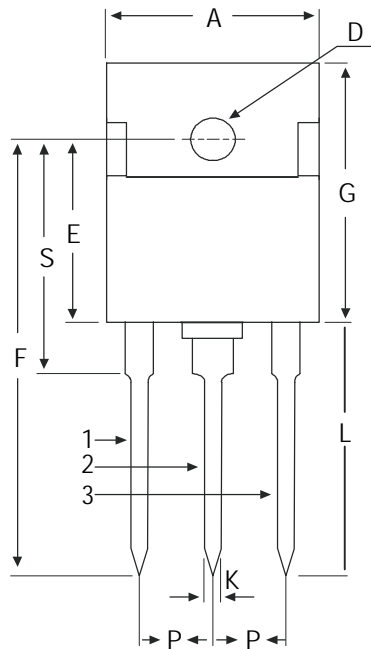
| DESCRIPTION | SYMBOL | TEST CONDITION | MIN | TYP | MAX | UNIT |
|----------------------------------|----------|--|-----|-----|-----|------|
| Current Gain - Bandwidth Product | f_T | $I_C=0.5\text{A}, V_{CE}=10\text{V}, f=1.0\text{MHz}$ | 2.5 | | | MHz |
| Small-Signal Current Gain | h_{fe} | $V_{CE}=4.0\text{ V}, I_C=1.0\text{ A}, f=1.0\text{KHz}$ | 15 | | | |

* Pulse test: Pulse Width $\approx 300\mu\text{s}$; Duty cycle $\leq 2.0\%$.

TIP2955F PNP
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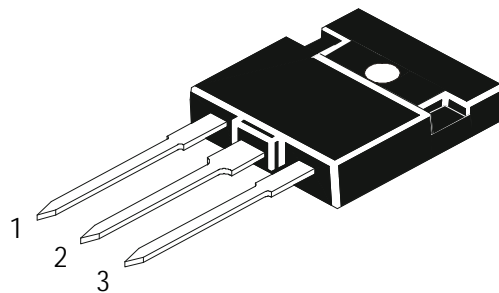
TO- 3P Fully Isolated
Plastic Package

TO-3P (TO-218) Plastic Package



| DIM | MIN | MAX |
|-----|--------|--------|
| A | 15.80 | 16.40 |
| B | 5.20 | 5.70 |
| C | 3.80 | 4.20 |
| D | Ø 3.30 | Ø 3.60 |
| E | 14.50 | 15.10 |
| F | 33.25 | 36.75 |
| G | 20.75 | 21.25 |
| H | 11.50 | 12.25 |
| K | 1.00 | 1.30 |
| L | 18.75 | 21.65 |
| M | 0.40 | 0.60 |
| N | 3.15 | 3.45 |
| P | 5.21 | 5.72 |
| S | 18.75 | 19.25 |

All diminsions in mm.



Pin Configuration

1. Base
2. Collector
3. Emitter

Packing Detail

| PACKAGE | STANDARD PACK | | INNER CARTON BOX | | OUTER CARTON BOX | | |
|---------|-----------------|----------------|------------------|------|-------------------|------|--------|
| | Details | Net Weight/Qty | Size | Qty | Size | Qty | Gr Wt |
| TO-3P | 100 pcs/polybag | 628 gm/100 pcs | 3" x 7.5" x 7.5" | 0.3K | 17" x 15" x 13.5" | 4.8K | 42 kgs |

Disclaimer

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