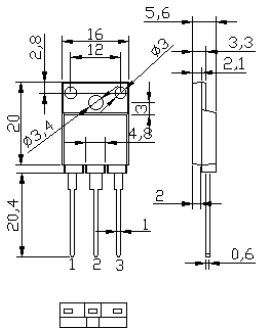
# NPN SILICON DIFFUSED POWER TRANSISTOR

… designed for horizontal deflection circuits of color television receivers.

**TO-3PM**




1 : Base
2 : Collector
3 : Emitter

Weight: 5.7g Unit in mm

## MAXIMUM RATINGS

| Characteristic | Symbol | Value | Unit |
|---|---|---|---|
| Collector Emitter Voltage (Open Base) | $V_{CEO}$ | 700 | V |
| Collector Emitter Voltage (Peak) | $V_{CESM}$ | 1500 | V |
| Collector Current (DC) | $I_C$ | 8 | A |
| Collector Current (Peak) | $I_{CM}$ | 15 | A |
| Base Current (DC) | $I_B$ | 4 | A |
| Base Current (Peak) | $I_{BM}$ | 6 | A |
| Total Power Dissipation $T_{hs}\leq 25°C$ | $P_{tot}$ | 34 | W |
| Junction Temperature | $T_j$ | 150 | °C |
| Storage Temperature Range | $T_{stg}$ | -65 ~ 150 | °C |

## ELECTRICAL CHARACTERISTICS ($T_{hs}$ = 25 °C)

| Characteristic | Symbol | Test Condition | Min. | Typ. | Max. | Unit |
|---|---|---|---|---|---|---|
| Collector Cutoff Current | $I_{CES}$ | $V_{BE}$=0, $V_{CE}$=$V_{CESmax}$ | - | - | 1 | mA |
| | | $V_{BE}$=0, $V_{CE}$=$V_{CESmax}$, $T_j$=125°C | - | - | 2 | mA |
| Emitter Cutoff Current | $I_{EBO}$ | $V_{EB}$=6V, $I_C$=0 | - | - | 10 | mA |
| DC Current Gain | $h_{FE}$ | $V_{CE}$=5A, $I_C$ =100mA | 6 | 13 | 30 | - |
| Collector Emitter Saturation Voltage | $V_{CE(sat)}$ | $I_B$=1.6A, $I_C$=4.5A | - | - | 1 | V |
| Base Emitter Saturation Voltage | $V_{BE(sat)}$ | $I_B$=2A, $I_C$=4.5A | - | - | 1.1 | V |
| Collector Emitter Sustaining Voltage | $V_{CEO(sus)}$ | $I_B$=0, $I_C$=100mA, L=25mH | 700 | - | - | V |
| Transition Frequency | $f_T$ | $V_{CE}$=5V, $I_C$=0.1A, f=5MHz | - | 7 | - | MHz |
| Collector Capacitance | $C_C$ | $V_{CB}$=10V, f=1MHz | - | 125 | - | pF |
| Switching Time | | $I_{C(sat)}$=4.5A, $L_C$=1mH, | | | | |
| Turn Off Storage Time | $t_s$ | $C_{fb}$=4nF, $I_{B(end)}$=1.4A, | - | 6.5 | - | μs |
| Turn Off Fall Time | $t_f$ | $L_B$=6μH, $V_{BB}$=4V, | - | 0.7 | - | μs |
| | | $I_{BM}$=-2.25A | | | | |

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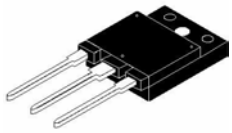

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