



SILICON NPN TRIPLE DIFFUSED MESA TYPE

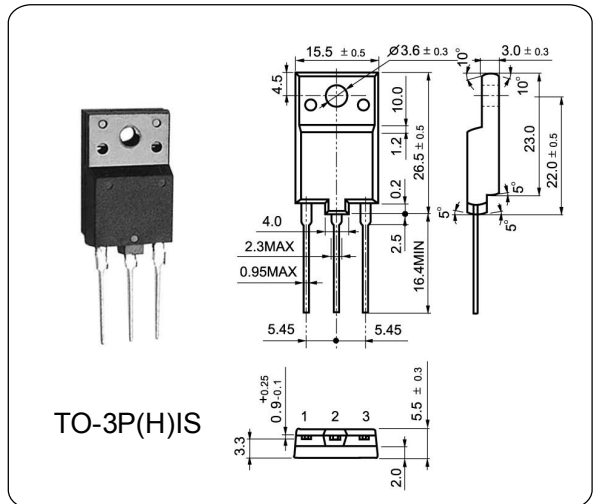
2SD2553

DESCRIPTION

HORIZONTAL DEFLECTION OUTPUT FOR HIGH RESOLUTION DISPLAY, COLOR TV
HIGH SPEED SWITCHING APPLICATIONS

ABSOLUTE MAXIMUM RATINGS (Ta = 25 °C)

| Parameter | Symbol | Value | Unit |
|-------------------------------------|---------------|---------|------|
| Collector-Base Voltage | V_{CB0} | 1700 | V |
| Collector-Emitter Voltage | V_{CEO} | 600 | V |
| Emitter-Base Voltage | V_{EBO} | 5 | V |
| Collector Current | I_C | 8.0 | A |
| Collector Peak Current | $I_{C(peak)}$ | 16 | A |
| Total Dissipation at | P_{tot} | 50 | W |
| Max. Operating Junction Temperature | T_j | 150 | °C |
| Storage Temperature | T_{stg} | -55~150 | °C |



ELECTRICAL CHARACTERISTICS (Ta = 25 °C)

| Parameter | Symbol | Test Conditions | Min. | Typ. | Max. | Unit |
|--------------------------------------|---------------|--|------|------|------|------|
| Collector Cutoff Current | I_{CB0} | $V_{CB}=1700V, I_E=0$ | — | — | 1.0 | mA |
| Emitter Cut-off Current | I_{EBO} | $V_{EB}=4.0V, I_C=0$ | 66 | — | 200 | mA |
| Emitter-Base Breakdown Voltage | $V_{(BR)EBO}$ | $I_C=10mA, I_B=0$ | 150 | — | — | V |
| DC Current Gain | $h_{FE(1)}$ | $V_{CE}=5.0V, I_C=1.0A$ | 8 | — | 28 | |
| | $h_{FE(2)}$ | $V_{CE}=5.0V, I_C=6.0A$ | 5 | — | 9 | |
| Collector-Emitter Saturation Voltage | $V_{CE(sat)}$ | $I_C=6.0A, I_B=1.2A$ | — | — | 5.0 | V |
| Base-Emitter Saturation Voltage | $V_{BE(sat)}$ | $I_C=6.0A, I_B=1.2A$ | — | 0.9 | 1.2 | V |
| Forward Voltage (Damper Diode) | V_F | $I_F=8.0A$ | — | 1.6 | 2.0 | V |
| Collector Output Capacitance | C_{ob} | $V_{CB}=10V, f=1.0MHz, I_E=0$ | — | 155 | — | pF |
| Transition Frequency | f_T | $V_{CE}=10V, I_C=100mA$ | — | 2.0 | — | MHz |
| Storage Time | t_{stg} | $I_{CP}=6.0A, I_{B1}(end)=1.5A$ $f_{H1}=15.75kHz$ | — | 9 | 12 | us |