

isc Silicon NPN Power Transistor

2SD380

DESCRIPTION

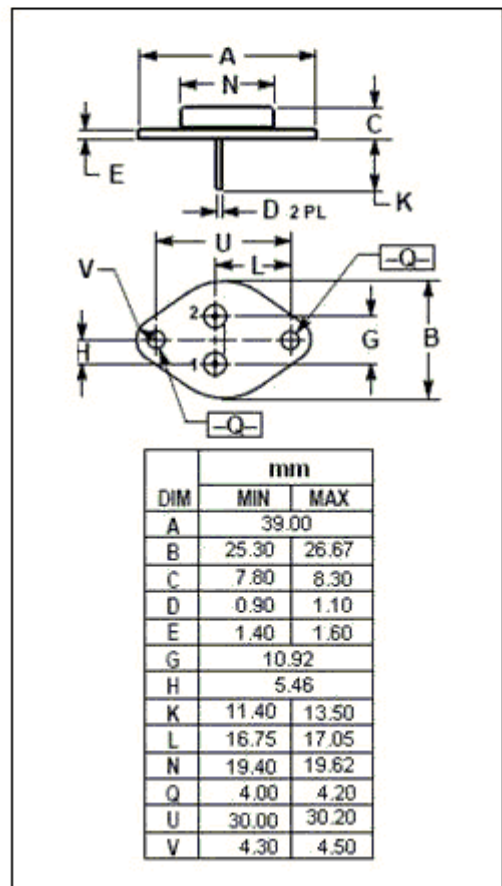
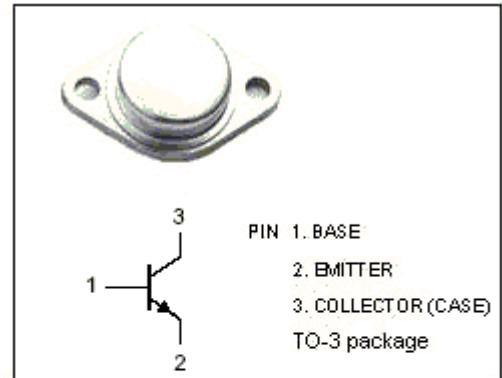
- High Breakdown Voltage-
: $V_{CBO} = 1500V$ (Min)
- High Switching Speed

APPLICATIONS

- Designed for line-operated horizontal deflection output applications.

ABSOLUTE MAXIMUM RATINGS($T_a=25^\circ C$)

| SYMBOL | PARAMETER | VALUE | UNIT |
|-----------|--|---------|------------|
| V_{CBO} | Collector-Base Voltage | 1500 | V |
| V_{CES} | Collector-Emitter Voltage | 1500 | V |
| V_{CEO} | Collector-Emitter Voltage | 700 | V |
| V_{EBO} | Emitter-Base Voltage | 5 | V |
| I_C | Collector Current- Continuous | 5 | A |
| I_{CM} | Collector Current-Peak | 7 | A |
| I_{BM} | Base Current-Peak | 3.5 | A |
| P_C | Collector Power Dissipation @ $T_c \leq 90^\circ C$ | 50 | W |
| T_J | Junction Temperature | 130 | $^\circ C$ |
| T_{stg} | Storage Temperature Range | -65~130 | $^\circ C$ |



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ELECTRICAL CHARACTERISTICS

 $T_C=25^{\circ}\text{C}$ unless otherwise specified

| SYMBOL | PARAMETER | CONDITIONS | MIN | TYP. | MAX | UNIT |
|---------------|--------------------------------------|---|-----|------|-----|---------------|
| $V_{(BR)EBO}$ | Emitter-Base Breakdown Voltage | $I_E=10\text{mA}; I_C=0$ | 5 | | | V |
| $V_{CE(sat)}$ | Collector-Emitter Saturation Voltage | $I_C=5\text{A}; I_B=1\text{A}$ | | | 10 | V |
| $V_{BE(sat)}$ | Base-Emitter Saturation Voltage | $I_C=5\text{A}; I_B=1\text{A}$ | | | 1.6 | V |
| I_{CBO} | Collector Cutoff Current | $V_{CB}=750\text{V}; I_E=0$ | | | 100 | μA |
| | | $V_{CB}=1500\text{V}; I_E=0$ | | | 1 | mA |
| h_{FE} | DC Current Gain | $I_C=5\text{A}; V_{CE}=10\text{V}$ | 5 | | 15 | |
| t_f | Fall Time | $I_C=5\text{A}, I_{Bend}=1.5\text{A}, L_B=5\mu\text{H}$ | | | 0.9 | μs |
| t_{stg} | Storage Time | | | 11 | | μs |