

isc Silicon NPN Darlington Power Transistor

2SD2232

DESCRIPTION

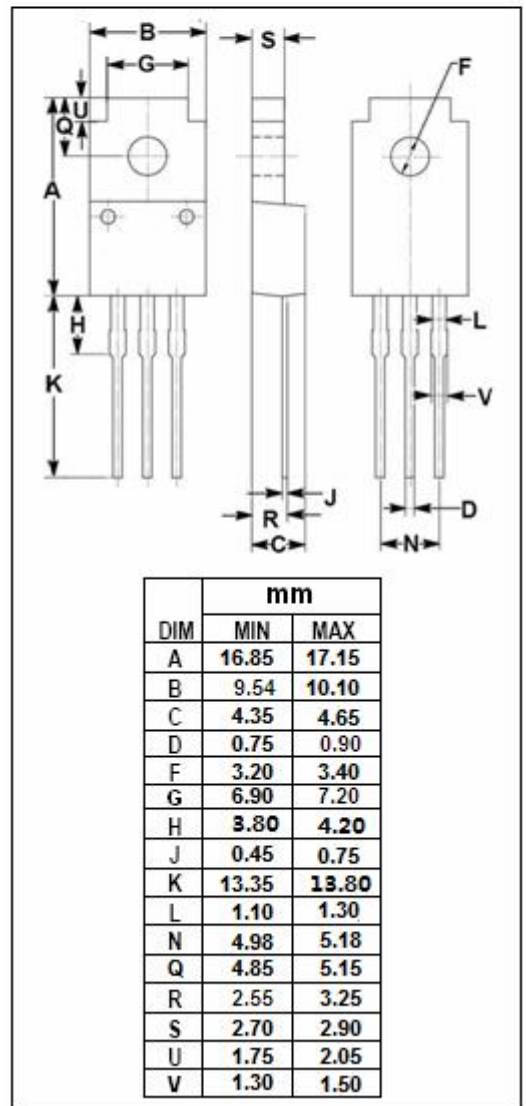
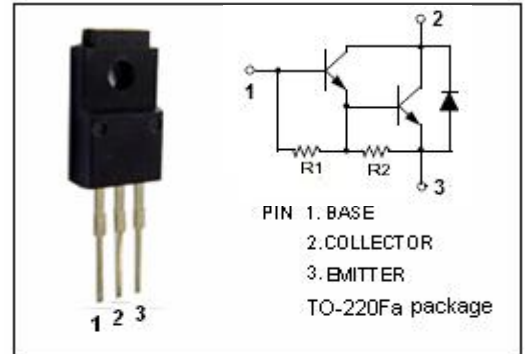
- High Collector-Emitter Breakdown Voltage-
: $V_{(BR)CEO} = 300V(\text{Min})$
- High DC Current Gain
: $h_{FE} = 3000(\text{Min}) @ I_C = 5A, V_{CE} = 2V$
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

- Igniter applications
- High voltage switching applications

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

| SYMBOL | PARAMETER | VALUE | UNIT |
|-----------|---|---------|------------------|
| V_{CBO} | Collector-Base Voltage | 400 | V |
| V_{CEO} | Collector-Emitter Voltage | 300 | V |
| V_{EBO} | Emitter-Base Voltage | 5 | V |
| I_C | Collector Current-Continuous | 8 | A |
| I_{CP} | Collector Current-Pulse | 12 | A |
| P_C | Collector Power Dissipation @ $T_a = 25^\circ\text{C}$ | 2 | W |
| | Collector Power Dissipation @ $T_c = 25^\circ\text{C}$ | 30 | |
| T_J | Junction Temperature | 150 | $^\circ\text{C}$ |
| T_{stg} | Storage Temperature Range | -55~150 | $^\circ\text{C}$ |



isc Silicon NPN Darlington Power Transistor**2SD2232****ELECTRICAL CHARACTERISTICS****T_C=25°C unless otherwise specified**

| SYMBOL | PARAMETER | CONDITIONS | MIN | TYP. | MAX | UNIT |
|----------------------|--------------------------------------|---|------|------|-------|------|
| V _{(BR)CEO} | Collector-Emitter Breakdown Voltage | I _C = 10mA ; I _B = 0 | 300 | | | V |
| V _{CE(sat)} | Collector-Emitter Saturation Voltage | I _C = 5A; I _B = 10mA | | | 2.0 | V |
| V _{BE(sat)} | Base-Emitter Saturation Voltage | I _C = 5A; I _B = 10mA | | | 2.5 | V |
| V _{ECF} | C-E Diode Forward Voltage | I _F = 5A | | | 3.0 | V |
| I _{CBO} | Collector Cutoff Current | V _{CB} = 400V; I _E = 0 | | | 10 | uA |
| I _{EBO} | Emitter Cutoff Current | V _{EB} = 5V; I _C = 0 | | | 3.0 | mA |
| h _{FE-1} | DC Current Gain | I _C = 3A ; V _{CE} = 2V | 1000 | | | |
| h _{FE-2} | DC Current Gain | I _C = 5A ; V _{CE} = 2V | 3000 | | 20000 | |
| f _T | Current-Gain—Bandwidth Product | I _C = 0.5A ; V _{CE} = 10V | | 20 | | MHz |

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