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# Silicon Diffused Power Transistor BU2727AF

## GENERAL DESCRIPTION

High voltage, high-speed switching npn transistor in a plastic full-pack envelope intended for use in horizontal deflection circuits of high resolution monitors. Designed to withstand $V_{CES}$ pulses up to 1700V.

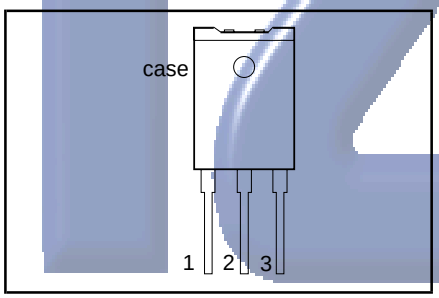
## QUICK REFERENCE DATA

| SYMBOL | PARAMETER | CONDITIONS | TYP. | MAX. | UNIT |
|---|---|---|---|---|---|
| $V_{CESM}$ | Collector-emitter voltage peak value | $V_{BE}$ = 0 V | - | 1700 | V |
| $V_{CEO}$ | Collector-emitter voltage (open base) | | - | 825 | V |
| $I_C$ | Collector current (DC) | | - | 12 | A |
| $I_{CM}$ | Collector current peak value | | - | 30 | A |
| $P_{tot}$ | Total power dissipation | $T_{hs} \leq 25$ ˚C | - | 45 | W |
| $V_{CEsat}$ | Collector-emitter saturation voltage | $I_C$ = 5.0 A; $I_B$ = 0.91 A | - | 1.0 | V |
| $I_{Csat}$ | Collector saturation current | f = 64 kHz | 5.0 | - | A |
| $t_s$ | Storage time | $I_{Csat}$ = 5.0 A; f = 64 kHz | 2.5 | 3.0 | µs |

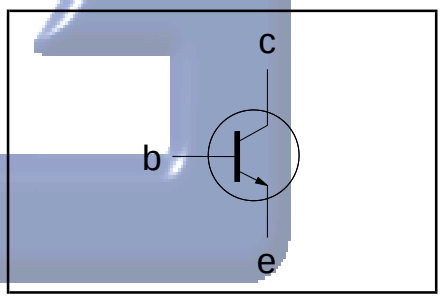
## PINNING - SOT199

| PIN | DESCRIPTION |
|---|---|
| 1 | base |
| 2 | collector |
| 3 | emitter |
| case | isolated |

## PIN CONFIGURATION




## SYMBOL




## LIMITING VALUES

Limiting values in accordance with the Absolute Maximum Rating System (IEC 134)

| SYMBOL | PARAMETER | CONDITIONS | MIN. | MAX. | UNIT |
|---|---|---|---|---|---|
| $V_{CESM}$ | Collector-emitter voltage peak value | $V_{BE}$ = 0 V | - | 1700 | V |
| $V_{CEO}$ | Collector-emitter voltage (open base) | | - | 825 | V |
| $I_C$ | Collector current (DC) | | - | 12 | A |
| $I_{CM}$ | Collector current peak value | | - | 30 | A |
| $I_B$ | Base current (DC) | | - | 12 | A |
| $I_{BM}$ | Base current peak value | | - | 25 | A |
| $-I_{B(AV)}$ | Reverse base current | average over any 20 ms period | - | 200 | mA |
| $-I_{BM}$ | Reverse base current peak value [1] | | - | 25 | A |
| $P_{tot}$ | Total power dissipation | $T_{hs} \leq$ 25 ˚C | - | 45 | W |
| $T_{stg}$ | Storage temperature | | -65 | 150 | ˚C |
| $T_j$ | Junction temperature | | - | 150 | ˚C |

## ESD LIMITING VALUES

| SYMBOL | PARAMETER | CONDITIONS | MIN. | MAX. | UNIT |
|---|---|---|---|---|---|
| $V_C$ | Electrostatic discharge capacitor voltage | Human body model (250 pF, 1.5 kΩ) | - | 10 | kV |

**1** Turn-off current.

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