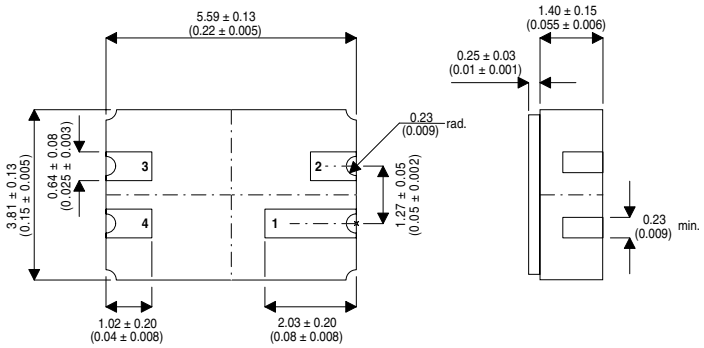
# BF257CSM4

## SILICON PLANAR NPN HIGH VOLTAGE TRANSISTOR IN A CERAMIC SURFACE MOUNT PACKAGE

**MECHANICAL DATA**
Dimensions in mm (inches)




**LCC3**

PAD 1 = COLLECTOR PAD 3 = EMITTER
PAD 2 = N/C PAD 4 = BASE

## FEATURES

- High Voltage
- Ceramic Surface Mount
- Screening Options Available

## ABSOLUTE MAXIMUM RATINGS

| | | |
|---|---|---|
| $V_{CBO}$ | Collector - Base Voltage ($I_E$ = 0 ) | 160V |
| $V_{CEO}$ | Collector - Emitter Voltage ($I_B$ = 0) | 160V |
| $V_{EBO}$ | Emitter Base Voltage ($I_C$ = 0) | 5V |
| $I_C$ | Collector Current | 100mA |
| $I_{CM}$ | Collector Peak Current | 200mA |
| $P_{tot}$ | Total Power Dissipation at $T_{case} \leq 50°C$ | 5W |
| $T_{stg}$ | Storage Temperature | -55 to 200°C |
| $T_j$ | Junction Temperature | 200°C |



**Semelab plc.** Telephone +44(0)1455 556565. Fax +44(0)1455 552612.
E-mail: sales@semelab.co.uk Website: http://www.semelab.co.uk

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## Thermal Data

| | | | |
|---|---|---|---|
| $R_{th\ j\text{-}case}$ | Thermal resistance junction - case | max | 30°C/W |
| $R_{th\ j\text{-}amb}$ | Thermal resistance junction - ambient | max | 175°C/W |

## Electrical Characteristics (Tamb = 25°C Unless otherwise specified)

| | Parameter | Test Conditions | | Min. | Typ. | Max. | Unit |
|---|---|---|---|---|---|---|---|
| $V_{(BR)CEO*}$ | Collector–Emitter Breakdown Voltage | $I_C$ = 10mA | $I_B$ = 0 | 160 | | | V |
| $V_{(BR)CBO}$ | Collector – Base Breakdown Voltage | $I_C$ = 100μA | $I_E$ = 0 | 160 | | | |
| $V_{(BR)EBO}$ | Emitter - Base Breakdown Voltage | $I_C$ = 0 | $I_E$ = 100μA | 5 | | | |
| $I_{CBO}$ | Collector Cutoff Current | $V_{CB}$ =100V | $I_E$ = 0 | | | 50 | nA |
| $V_{CE(sat)*}$ | Collector – Emitter Saturation Voltage | $I_C$ = 30mA | $I_B$ = 6mA | | | 1 | V |
| $h_{FE*}$ | DC Current Gain | $I_C$ = 30mA | $I_B$ = 10V | 25 | | | — |
| $f_t$ | Transition Frequency | $I_C$ = 15mA | $V_{CE}$ = 10V | | 90 | | MHz |
| $C_{re}$ | Reverse Capacitance | $I_C$ = 0<br>f = 1MHz | $V_{CE}$ = 30V | | 3 | | pF |

* Pulsed test $t_p$ = 300μs , δ = 1%



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