



SBE805

30V, 500mA Rectifier

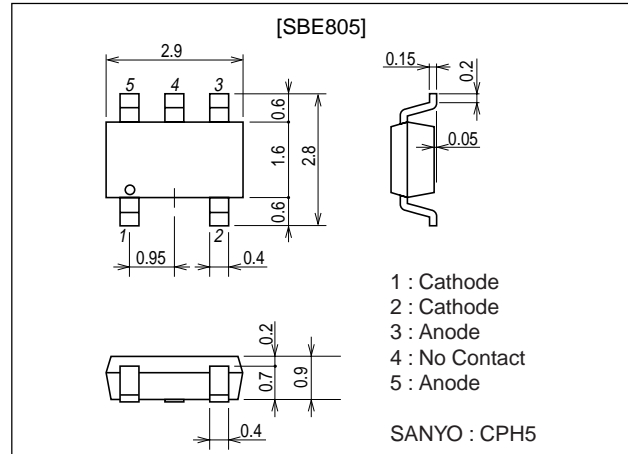
An ON Semiconductor Company

Features

- Low forward voltage ($V_F \text{ max}=0.55\text{V}$).
- Fast reverse recovery time ($t_{rr} \text{ max}=10\text{ns}$).
- Composite type with 2 diodes contained in the CPH package currently in use, improving the mounting efficiency greatly.
- The chips incorporated are both equivalent to the SB05-03C.

Package Dimensions

unit : mm
1294



Specifications

Absolute Maximum Ratings at $T_a=25^\circ\text{C}$ (Value per element)

| Parameter | Symbol | Conditions | Ratings | Unit |
|---|-----------|-------------------------|-------------|------------------|
| Repetitive Peak Reverse Voltage | V_{RRM} | | 30 | V |
| Non-repetitive Peak Reverse Surge Voltage | V_{RSM} | | 35 | V |
| Average Output Current | I_O | | 500 | mA |
| Surge Forward Current | I_{FSM} | 50Hz sine wave, 1 cycle | 5 | A |
| Junction Temperature | T_j | | -55 to +125 | $^\circ\text{C}$ |
| Storage Temperature | T_{stg} | | -55 to +125 | $^\circ\text{C}$ |

Electrical Characteristics at $T_a=25^\circ\text{C}$ (Value per element)

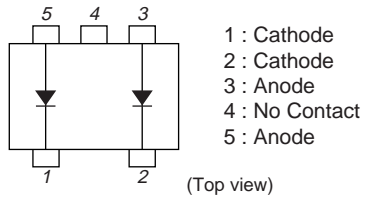
| Parameter | Symbol | Conditions | Ratings | | | Unit |
|---------------------------|---------------|--|---------|-----|------|--------------------|
| | | | min | typ | max | |
| Reverse Voltage | V_R | $I_R=150\mu\text{A}$ | 30 | | | V |
| Forward Voltage | V_F | $I_F=500\text{mA}$ | | | 0.55 | V |
| Reverse Current | I_R | $V_R=15\text{V}$ | | | 30 | μA |
| Interterminal Capacitance | C | $V_R=10\text{V}, f=1\text{MHz}$ | | 16 | | pF |
| Reverse Recovery Time | t_{rr} | $I_F=I_R=100\text{mA}$, see specified Test Circuit. | | | 10 | ns |
| Thermal Resistance | $R_{th(j-a)}$ | | | 300 | | $^\circ\text{C/W}$ |

Marking : SE

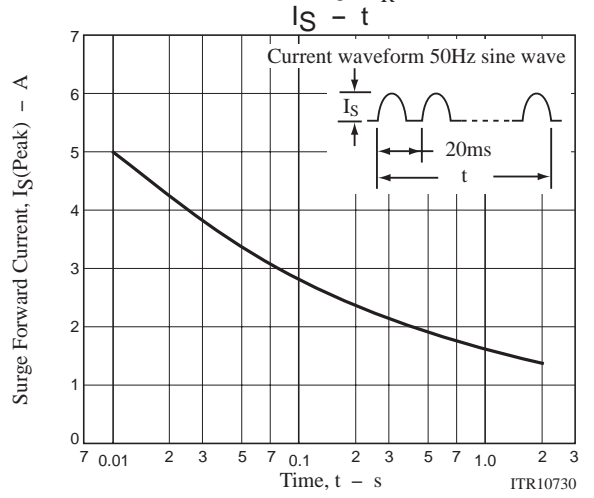
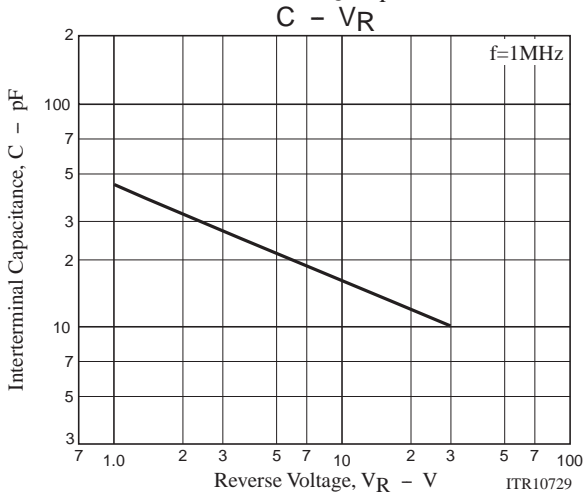
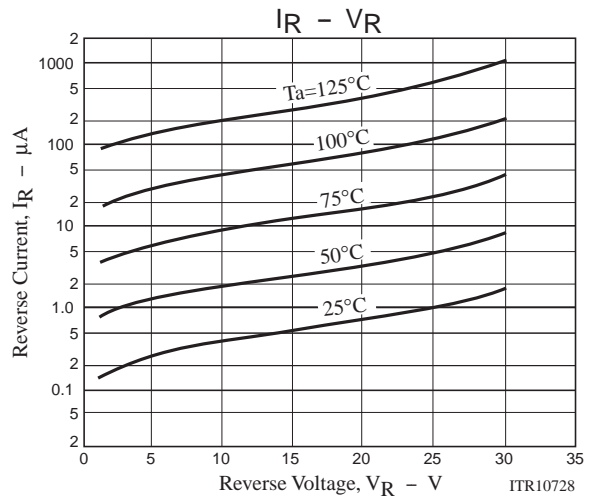
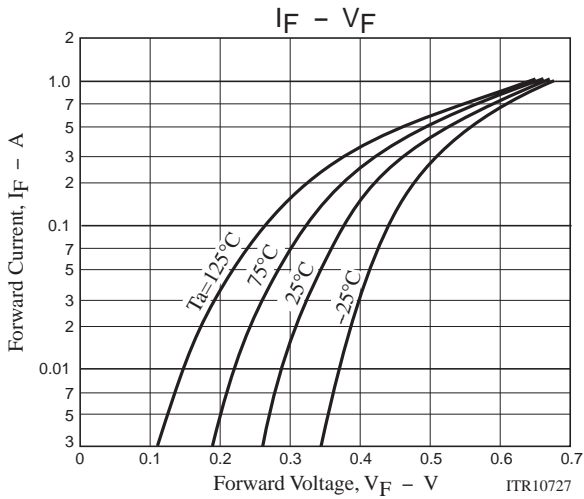
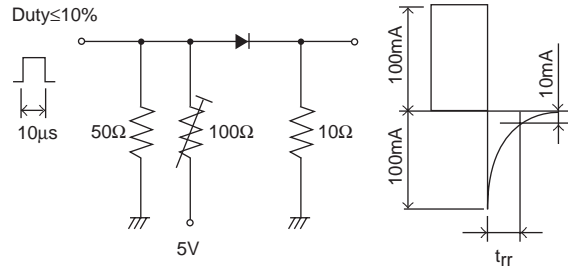
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Electrical Connection



t_{rr} Test Circuit



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