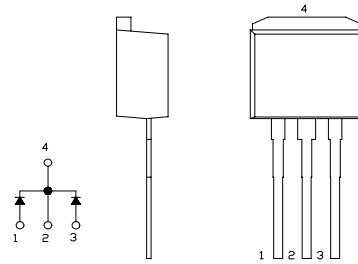


# SBD Type : C30T06QH-11A

## OUTLINE DRAWING

### FEATURES

- \*Tabless TO-220
- \*Dual Diodes – Cathode Common
- \*Low Forward Voltage Drop
- \*High Surge Capability
- \*T<sub>j</sub>=150 °C operation



## Maximum Ratings

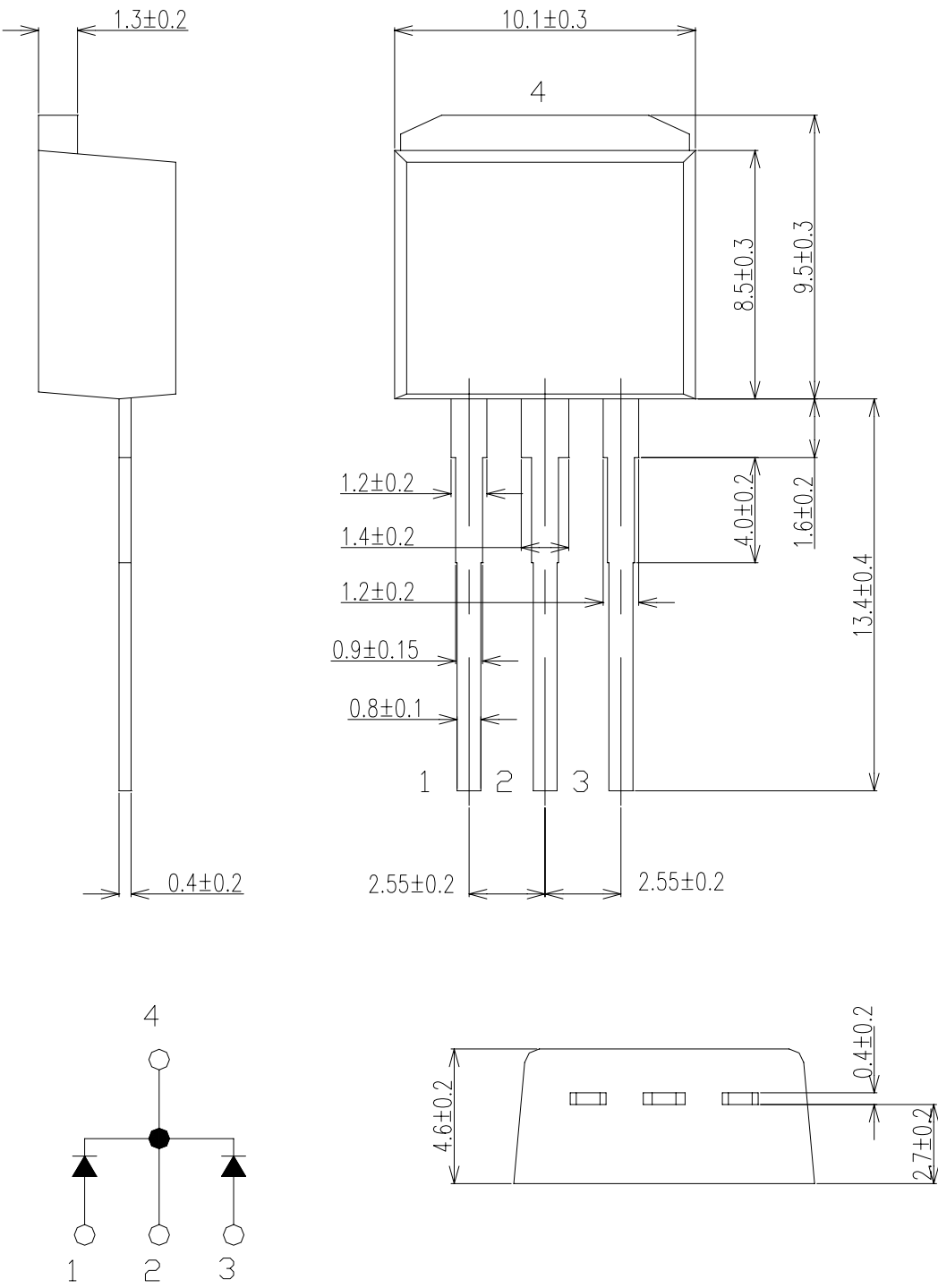
Approx Net Weight: 1.45g

| Rating                                | Symbol              | C20T06QH-11A                         |                                               |                                        | Unit |
|---------------------------------------|---------------------|--------------------------------------|-----------------------------------------------|----------------------------------------|------|
| Repetitive Peak Reverse Voltage       | V <sub>RRM</sub>    | 60                                   |                                               |                                        | V    |
| Repetitive Peak Surge Reverse Voltage | V <sub>RRSM</sub>   | 65(pulse width ≤ 1μs    duty ≤ 1/50) |                                               |                                        | V    |
| Average Rectified Output Current      | I <sub>O</sub>      | 30                                   | Tc=108°C                                      | 50 Hz Full Sine Wave<br>Resistive Load | A    |
| RMS Forward Current                   | I <sub>F(RMS)</sub> | 33.3                                 |                                               |                                        | A    |
| Surge Forward Current                 | I <sub>FSM</sub>    | 200                                  | 50Hz Full Sine Wave ,1cycle<br>Non-repetitive |                                        | A    |
| Operating JunctionTemperature Range   | T <sub>jw</sub>     | -40 to +150                          |                                               |                                        | °C   |
| Storage Temperature Range             | T <sub>stg</sub>    | -40 to +150                          |                                               |                                        | °C   |

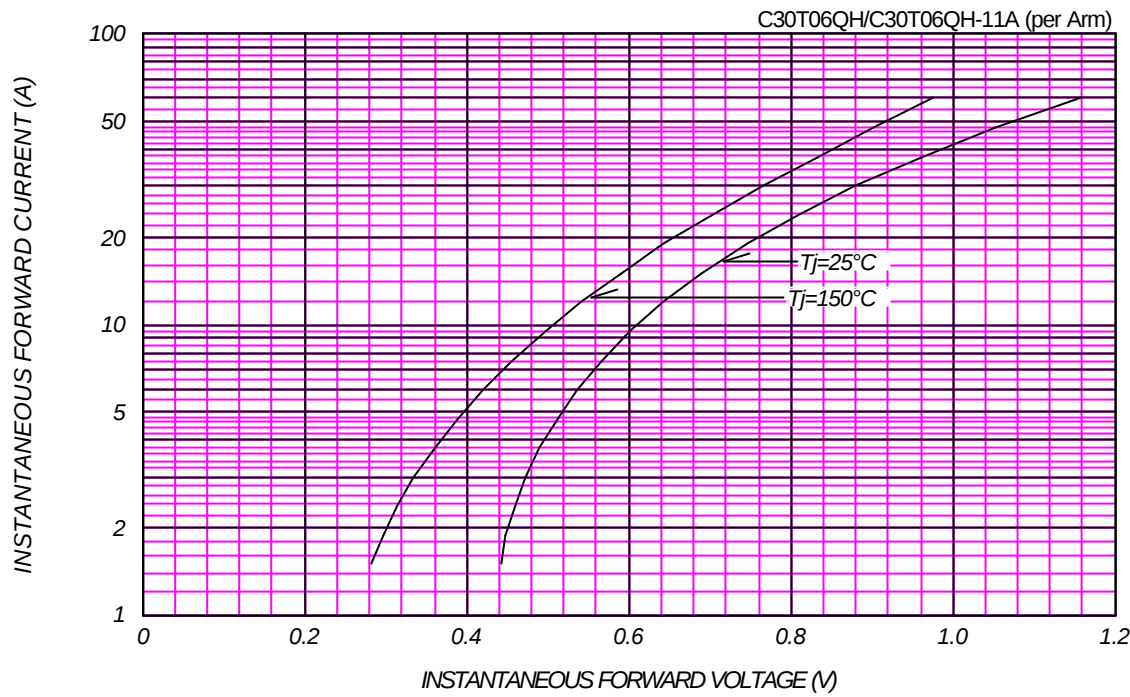
## Electrical • Thermal Characteristics

| Characteristics      | Symbol               | Conditions                                                           | Min. | Typ. | Max. | Unit  |
|----------------------|----------------------|----------------------------------------------------------------------|------|------|------|-------|
| Peak Reverse Current | I <sub>RM</sub>      | T <sub>j</sub> = 25°C, V <sub>RM</sub> = V <sub>RRM</sub><br>per arm | -    | -    | 1    | mA    |
| Peak Forward Voltage | V <sub>FM</sub>      | T <sub>j</sub> = 25°C, I <sub>FM</sub> = 15 A<br>per arm             | -    | -    | 0.69 | V     |
| Thermal Resistance   | R <sub>th(j-c)</sub> | Junction to Case                                                     | -    | -    | 1.5  | °C /W |

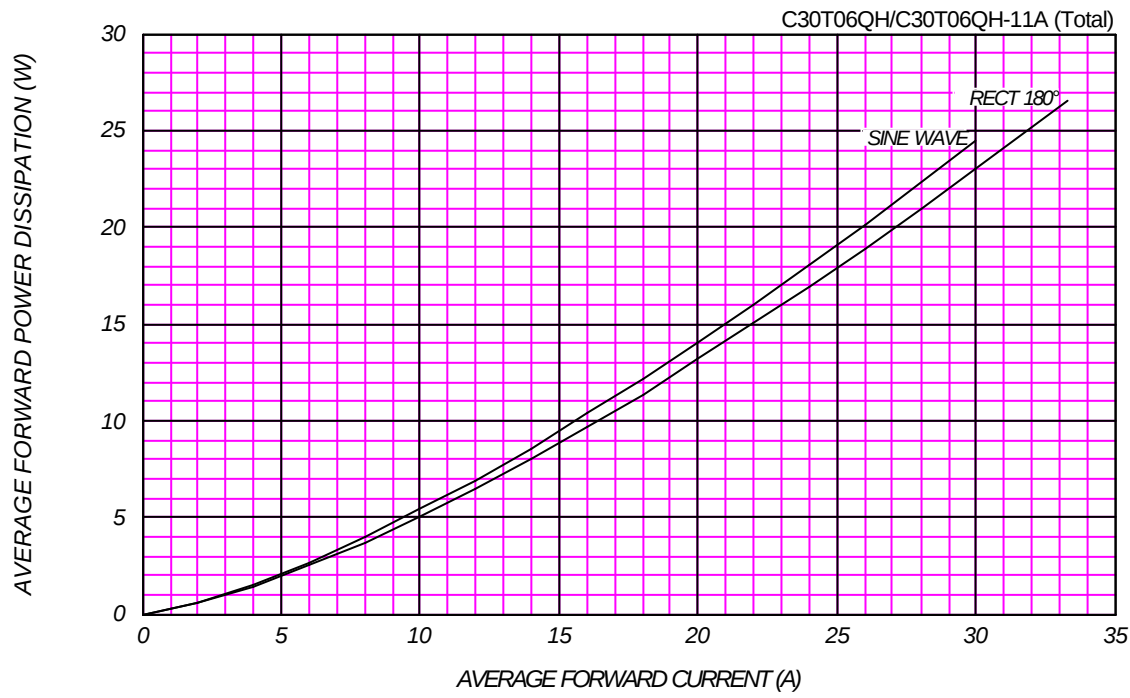
C\_T\_ 11A OUTLINE DRAWING (Dimensions in mm)



FORWARD CURRENT VS. VOLTAGE



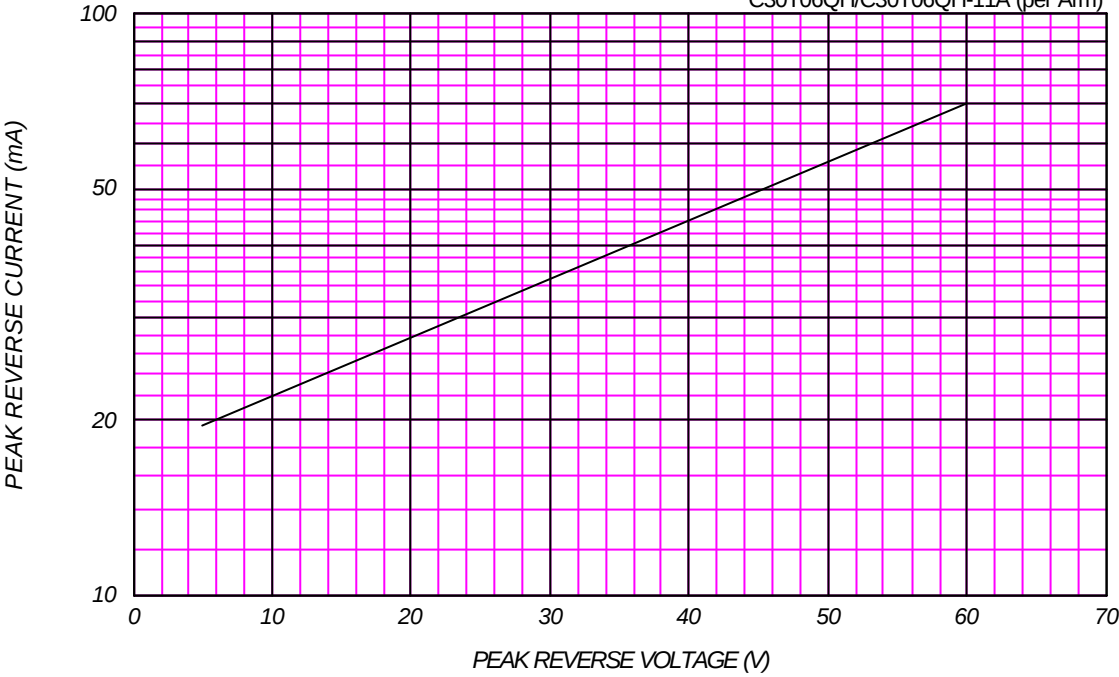
AVERAGE FORWARD POWER DISSIPATION



PEAK REVERSE CURRENT VS. PEAK REVERSE VOLTAGE

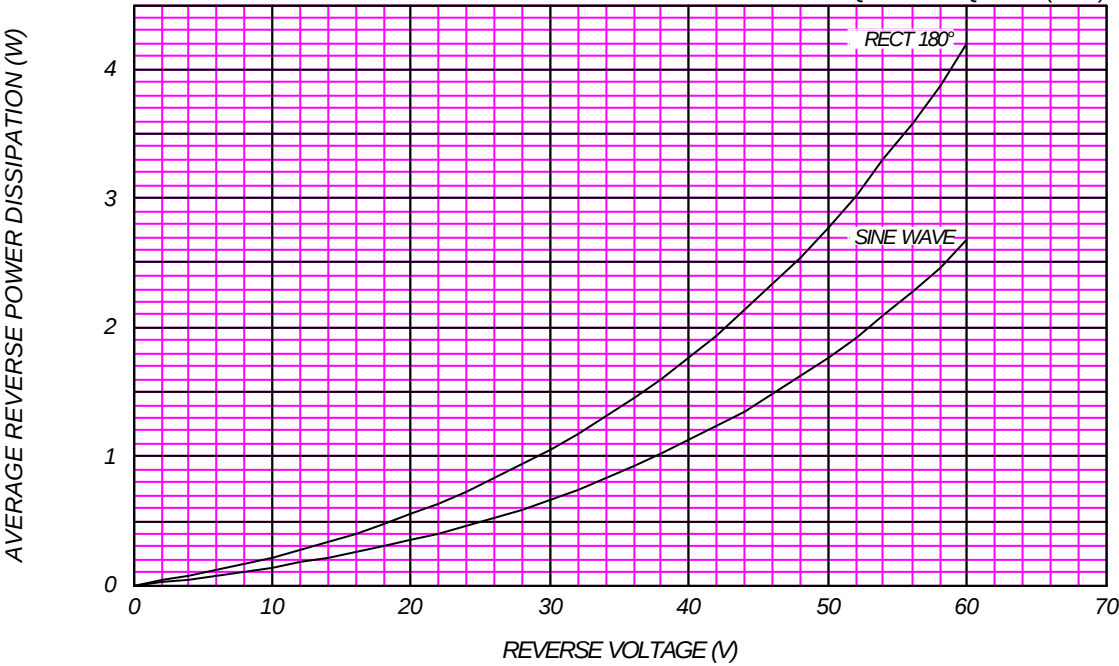
T<sub>j</sub>= 150 °C

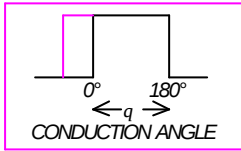
C30T06QH/C30T06QH-11A (per Arm)



AVERAGE REVERSE POWER DISSIPATION

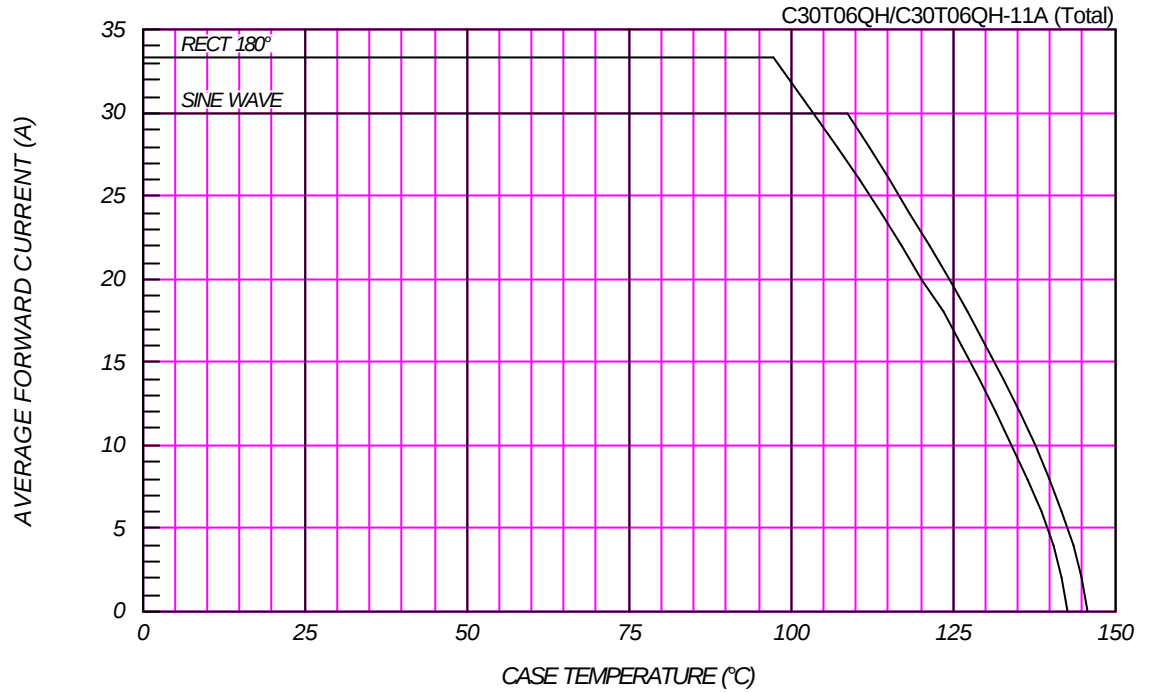
C30T06QH/C30T06QH-11A (Total)





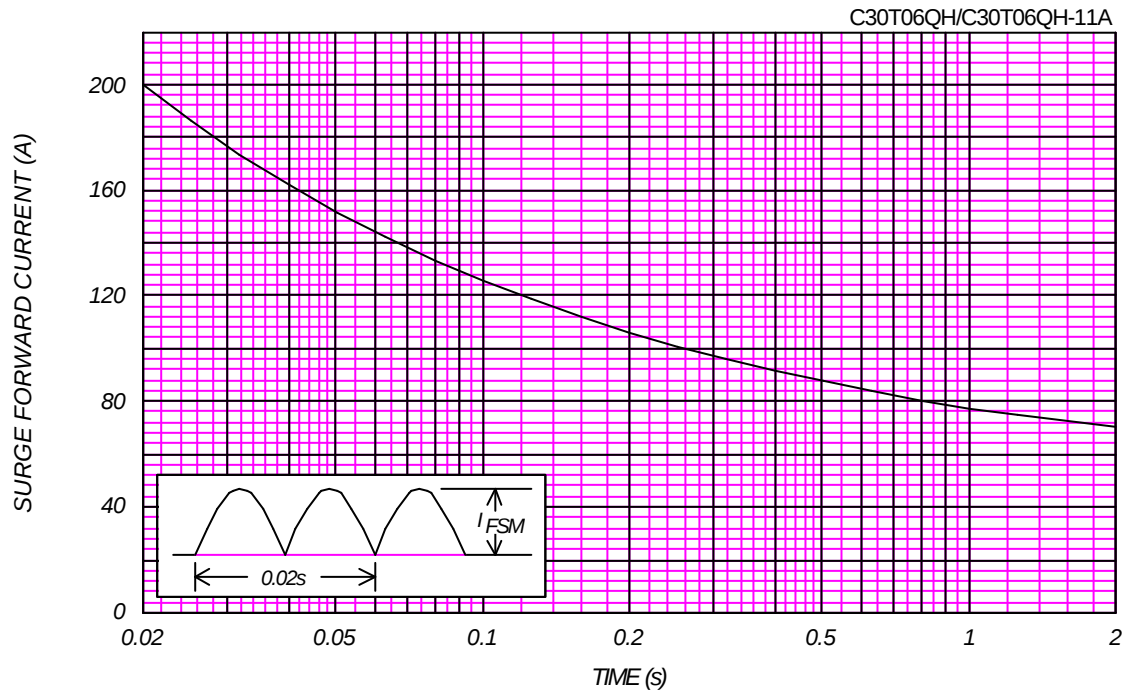
### AVERAGE FORWARD CURRENT VS. CASE TEMPERATURE

$V_{RM}=60V$



### SURGE CURRENT RATINGS

f=50Hz, Sine Wave, Non-Repetitive, No Load



# JUNCTION CAPACITANCE VS. REVERSE VOLTAGE

$T_j=25^{\circ}\text{C}$ ,  $V_m=20\text{mV}_{\text{RMS}}$ ,  $f=100\text{kHz}$ , Typical Value

C30T06QH/C30T06QH-11A (per Arm)

