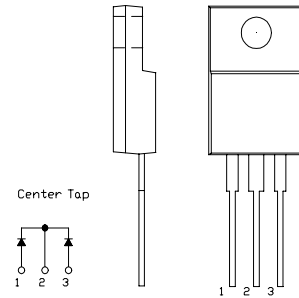


SBD Type : FCH30A09

OUTLINE DRAWING

FEATURES

- *TO-220AB Case
- *Fully Molded
- *Dual Diodes – Cathode Common
- *Low Forward Voltage Drop
- *High Surge Capability
- *Tj=150 °C operation



Maximum Ratings

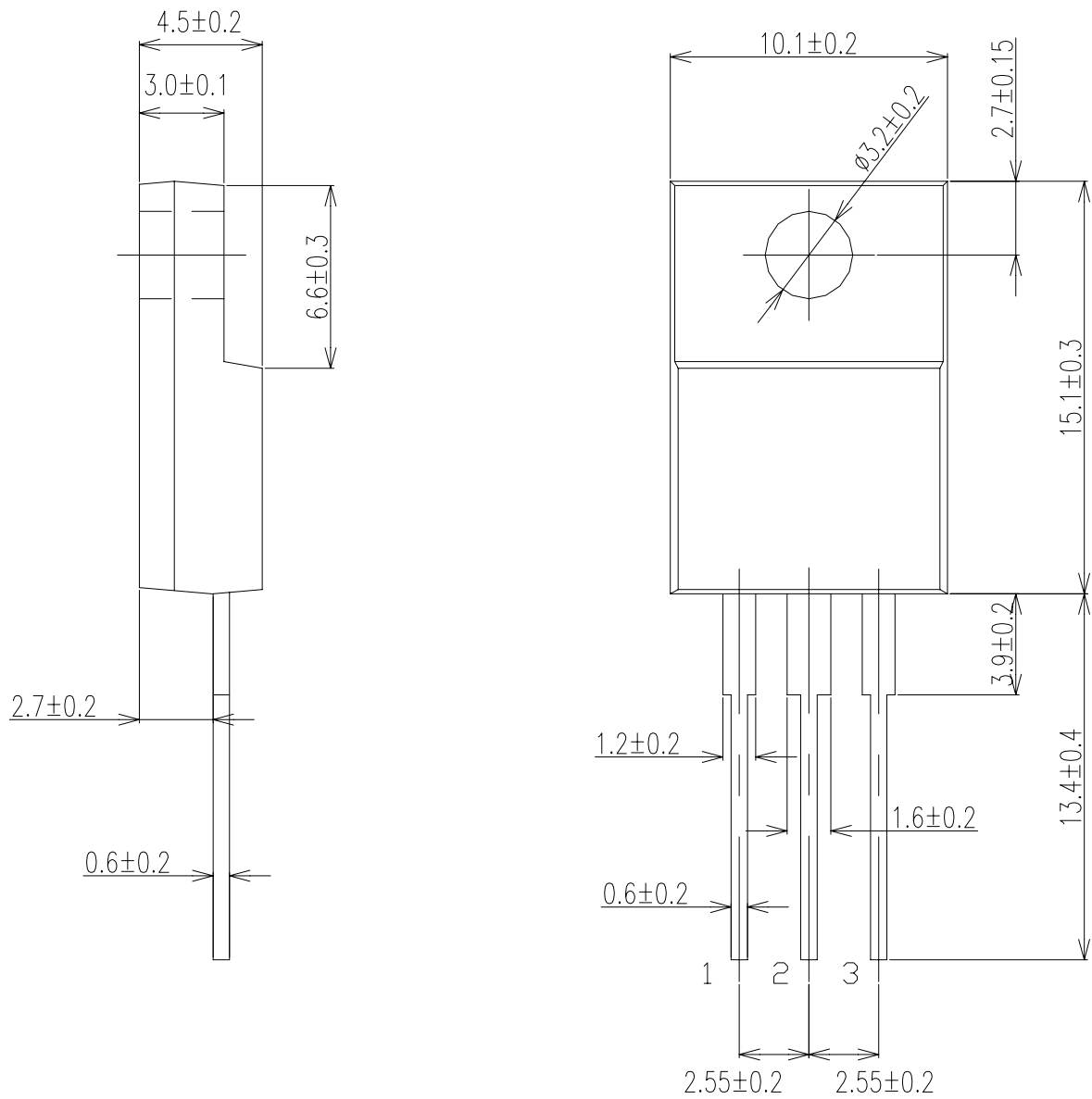
Approx Net Weight: 1.75g

| Rating | Symbol | FCH30A09 | | Unit |
|-------------------------------------|--------------|--------------------------|--|------|
| Repetitive Peak Reverse Voltage | V_{RRM} | 90 | | V |
| Average Rectified Output Current | I_O | 30 | Tc=106°C 50 Hz Full Sine Wave Resistive Load | A |
| RMS Forward Current | $I_{F(RMS)}$ | 33.3 | | A |
| Surge Forward Current | I_{FSM} | 250 | 50Hz Full Sine Wave ,1cycle Non-repetitive | A |
| Operating JunctionTemperature Range | T_{jw} | -40 to +150 | | °C |
| Storage Temperature Range | T_{stg} | -40 to +150 | | °C |
| Mounting torque | Ftor | recommended torque = 0.5 | | N•m |

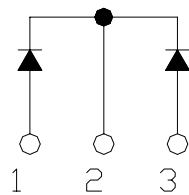
Electrical • Thermal Characteristics

| Characteristics | Symbol | Conditions | Min. | Typ. | Max. | Unit |
|----------------------|----------|--|------|------|------|------|
| Peak Reverse Current | I_{RM} | Tj= 25°C, $V_{RM}= V_{RRM}$ per arm | - | - | 1 | mA |
| Peak Forward Voltage | V_{FM} | Tj= 25°C, $I_{FM}= 15$ A per arm | - | - | 0.88 | V |
| Thermal Resistance | Rth(j-c) | Junction to Case | - | - | 1.5 | °C/W |
| | Rth(c-f) | Cace to Fin | - | - | 1.5 | °C/W |

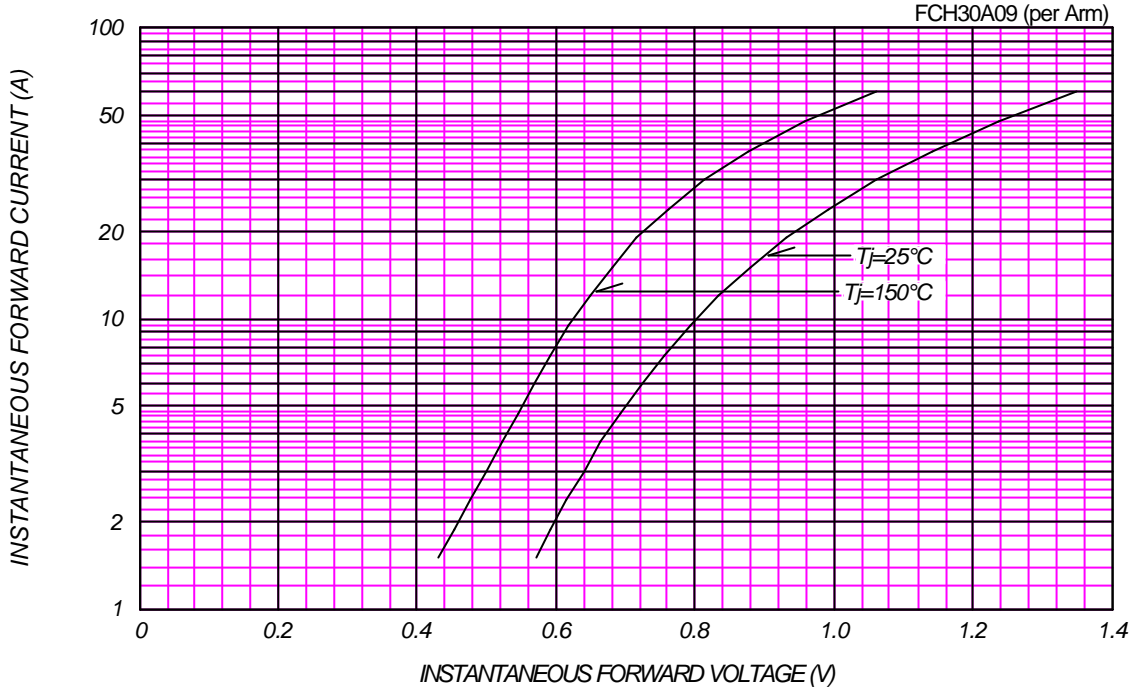
FCH_A_OUTLINE DRAWING (Dimensions in mm)



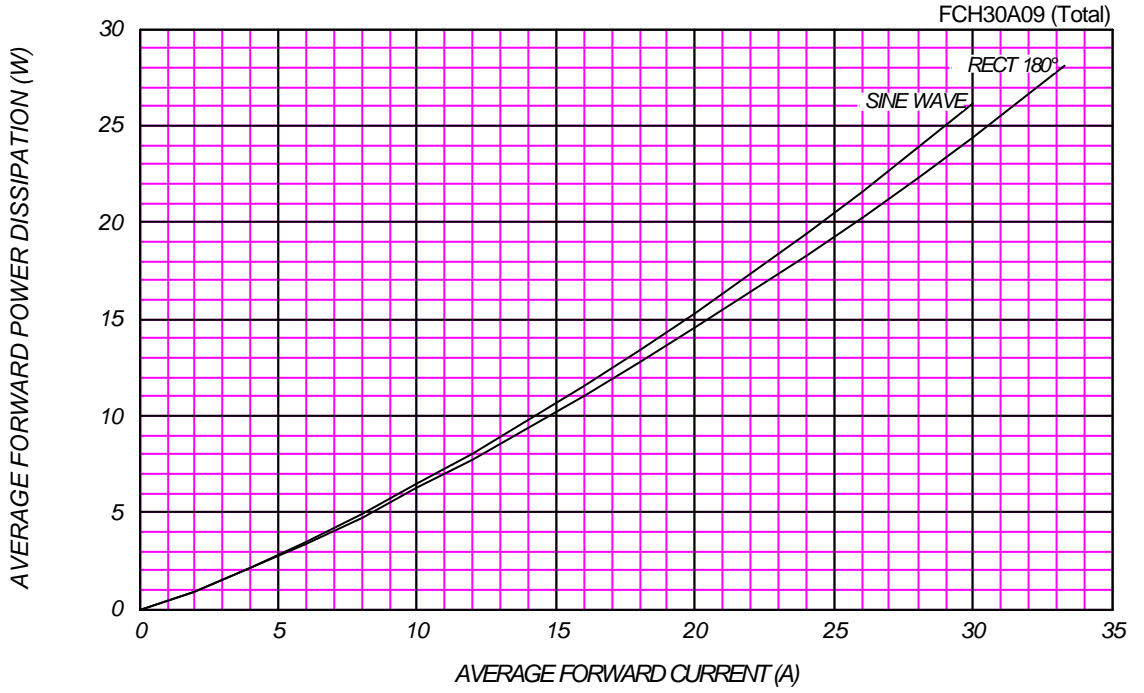
Center Tap



FORWARD CURRENT VS. VOLTAGE



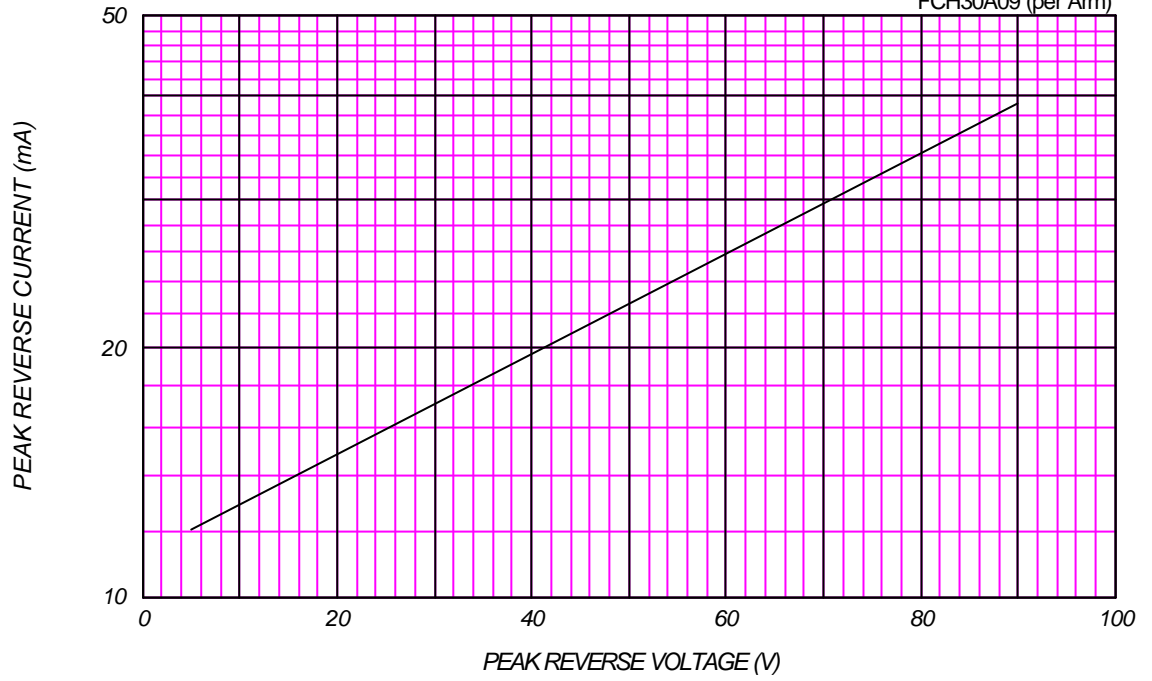
AVERAGE FORWARD POWER DISSIPATION



PEAK REVERSE CURRENT VS. PEAK REVERSE VOLTAGE

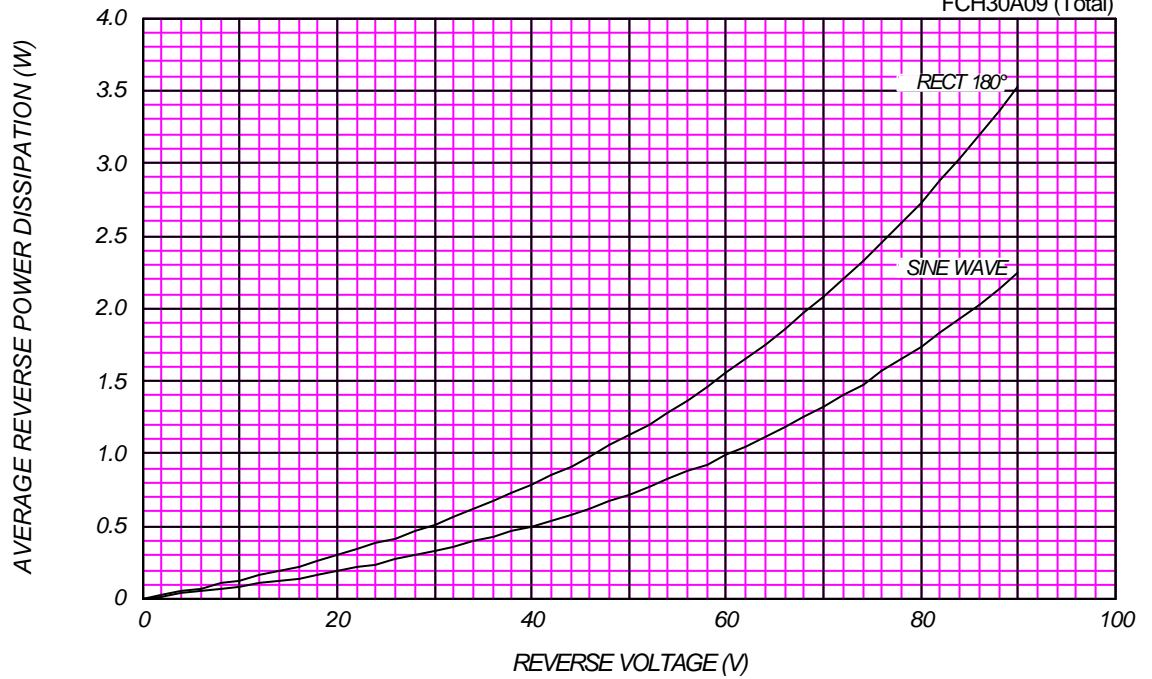
T_j = 150 °C

FCH30A09 (per Arm)



AVERAGE REVERSE POWER DISSIPATION

FCH30A09 (Total)

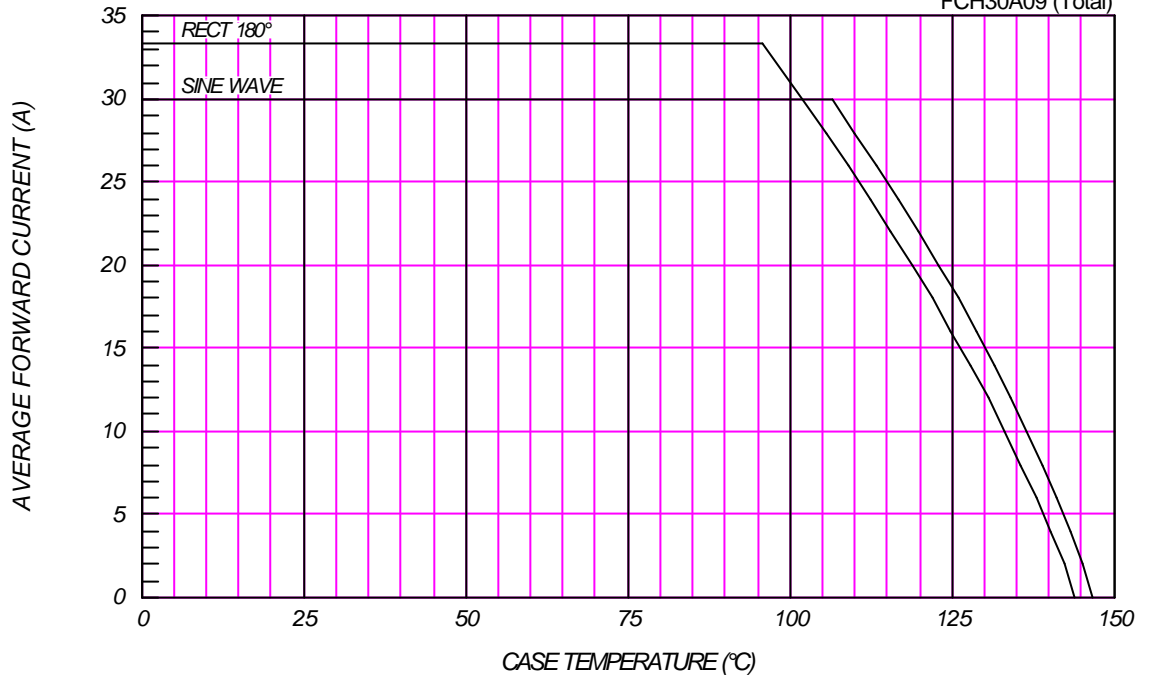




AVERAGE FORWARD CURRENT VS. CASE TEMPERATURE

$V_{RM}=90V$

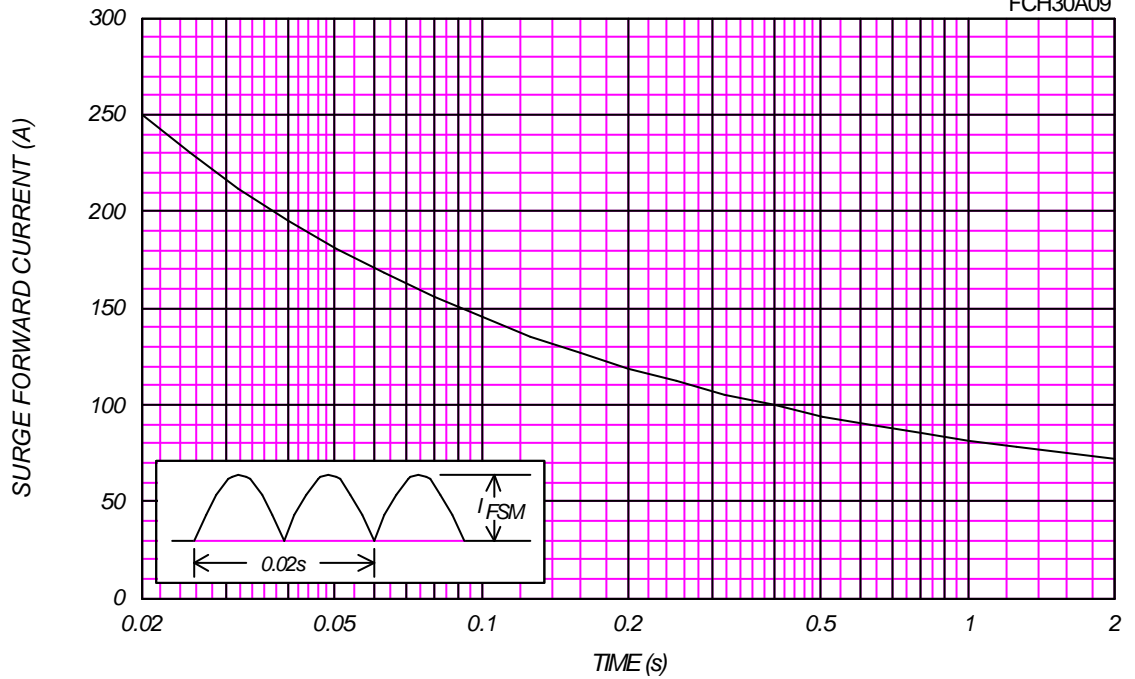
FCH30A09 (Total)



SURGE CURRENT RATINGS

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

FCH30A09



JUNCTION CAPACITANCE VS. REVERSE VOLTAGE

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

FCH30A09 (per Arm)

