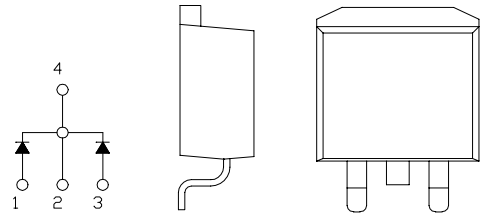


SBD Type : C10T03QL

OUTLINE DRAWING

FEATURES

- *SQUARE-PAK TO-263AB(SMD)
- Packaged in 24mm Tape and Reel
- *Dual Diodes – Cathode Common
- *Low Forward Voltage Drop
- *High Surge Capability
- *Tj=150 °C operation



Maximum Ratings

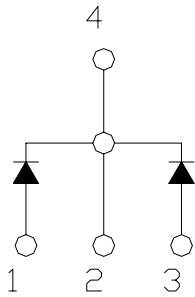
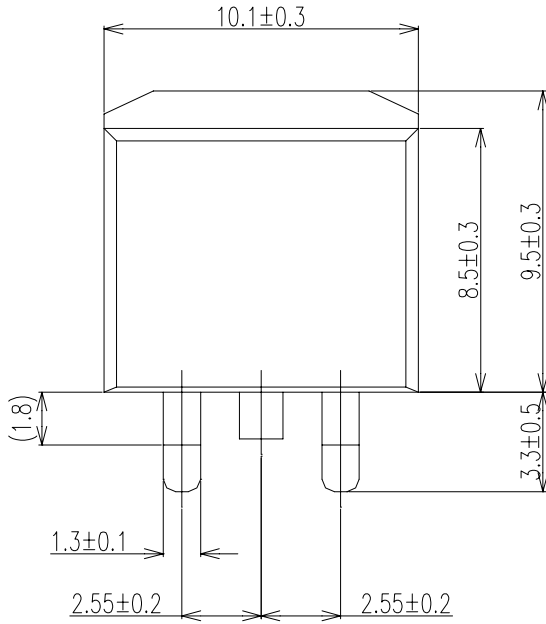
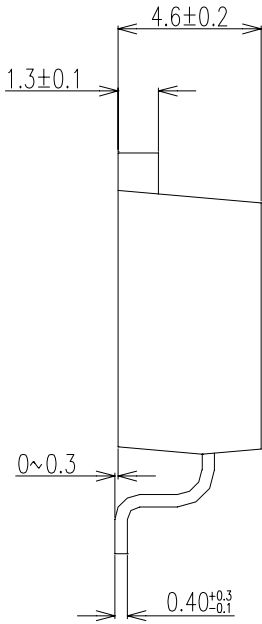
Approx Net Weight: 1.4g

| Rating | Symbol | C10T03QL | | | Unit |
|---------------------------------------|---------------------|--------------------------------------|---|--|------|
| Repetitive Peak Reverse Voltage | V _{RRM} | 30 | | | V |
| Repetitive Peak Surge Reverse Voltage | V _{RRSM} | 35(pulse width ≤ 1μs duty ≤ 1/50) | | | V |
| Average Rectified Output Current | I _O | 10 | Tc=116°C | 50 Hz Full Sine Wave Resistive Load | A |
| RMS Forward Current | I _{F(RMS)} | 11.1 | | | A |
| Surge Forward Current | I _{FSM} | 120 | 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 |

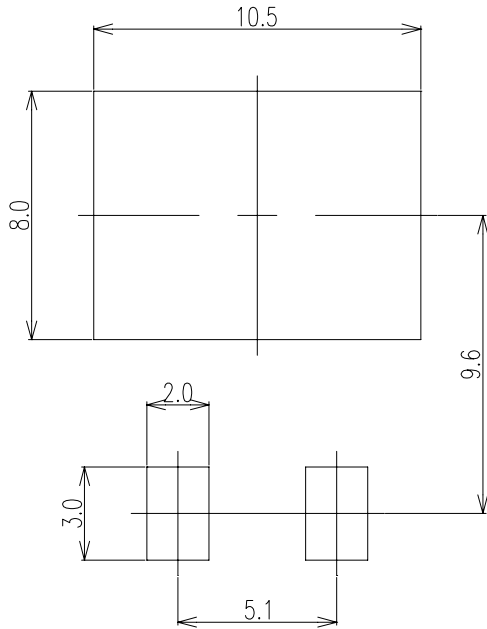
Electrical • Thermal Characteristics

| Characteristics | Symbol | Conditions | Min. | Typ. | Max. | Unit |
|----------------------|---------------|--|------|------|------|-------|
| Peak Reverse Current | I_{RM} | $T_j = 25^\circ C$, $V_{RM} = V_{RRM}$ per arm | - | - | 5 | mA |
| Peak Forward Voltage | V_{FM} | $T_j = 25^\circ C$, $I_{FM} = 5 A$ per arm | - | - | 0.47 | V |
| Thermal Resistance | $R_{th(j-c)}$ | Junction to Case | - | - | 3 | °C /W |

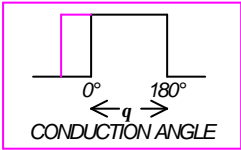
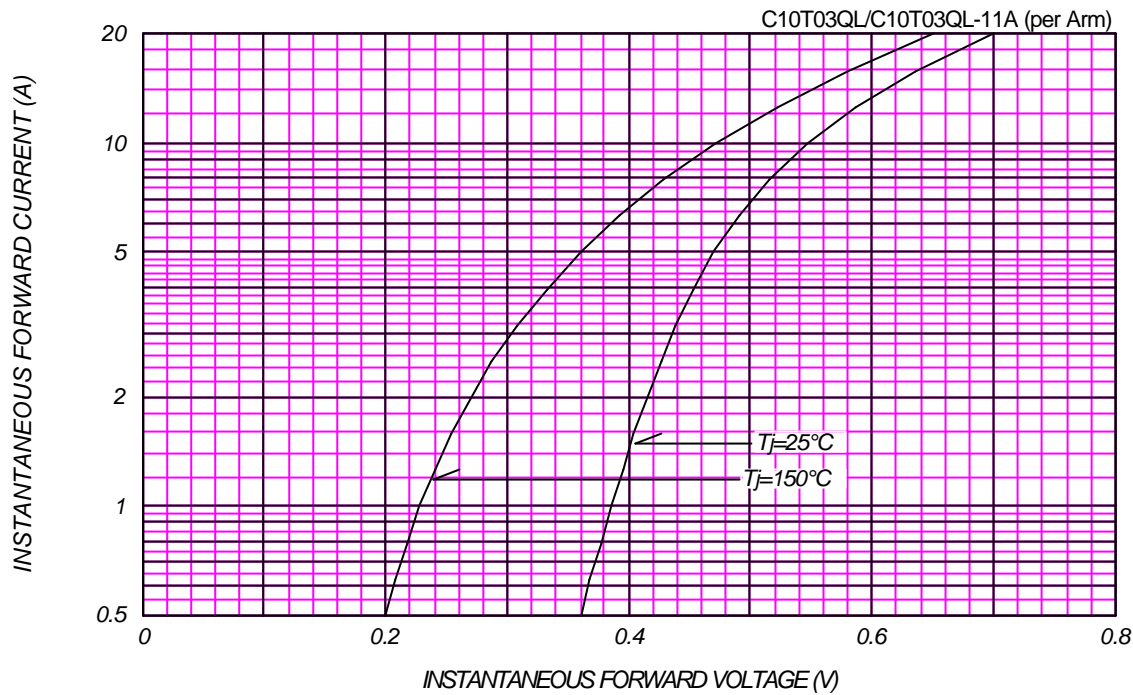
C_T_ OUTLINE DRAWING (Dimensions in mm)



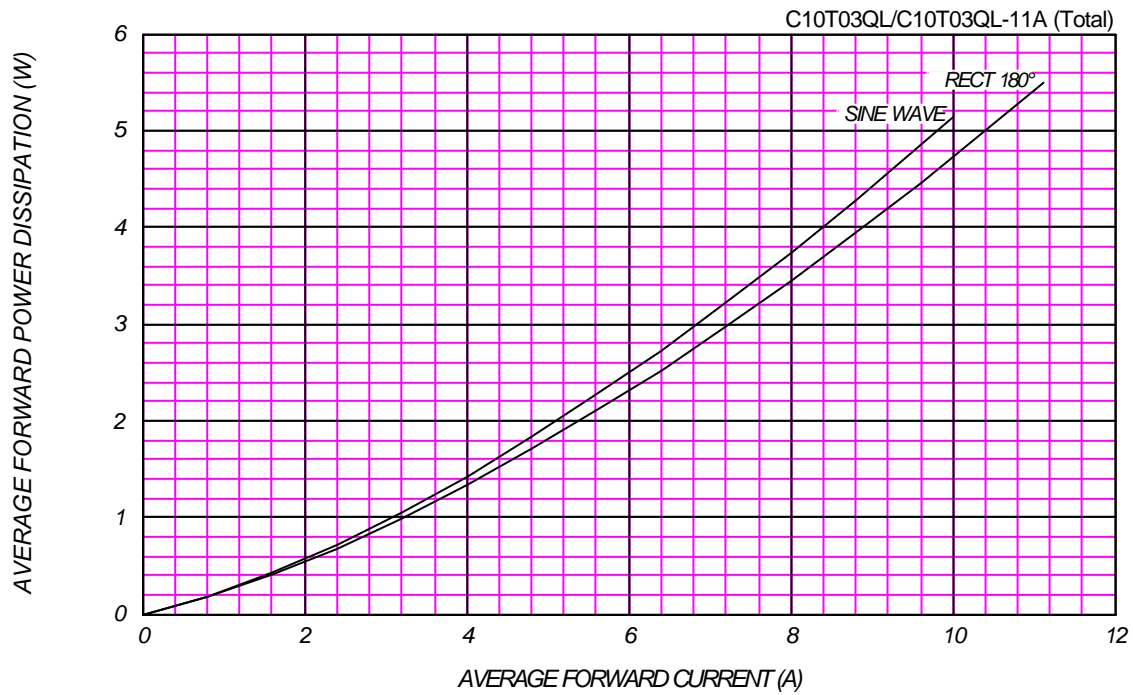
SOLDERING PAD



FORWARD CURRENT VS. VOLTAGE



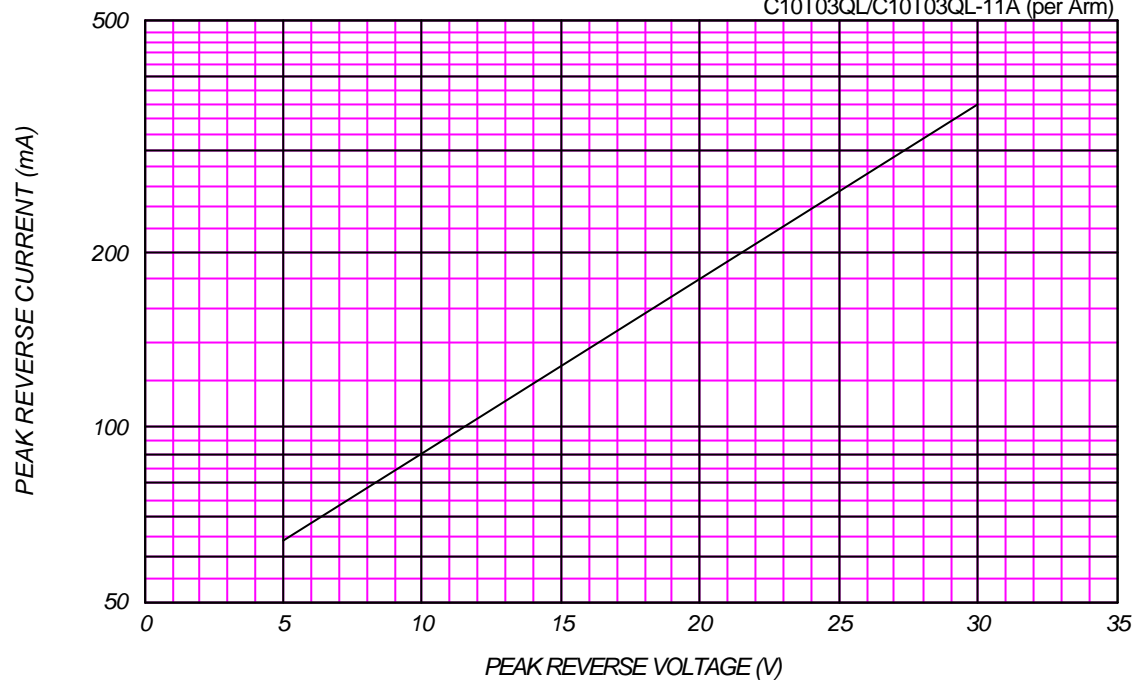
AVERAGE FORWARD POWER DISSIPATION



PEAK REVERSE CURRENT VS. PEAK REVERSE VOLTAGE

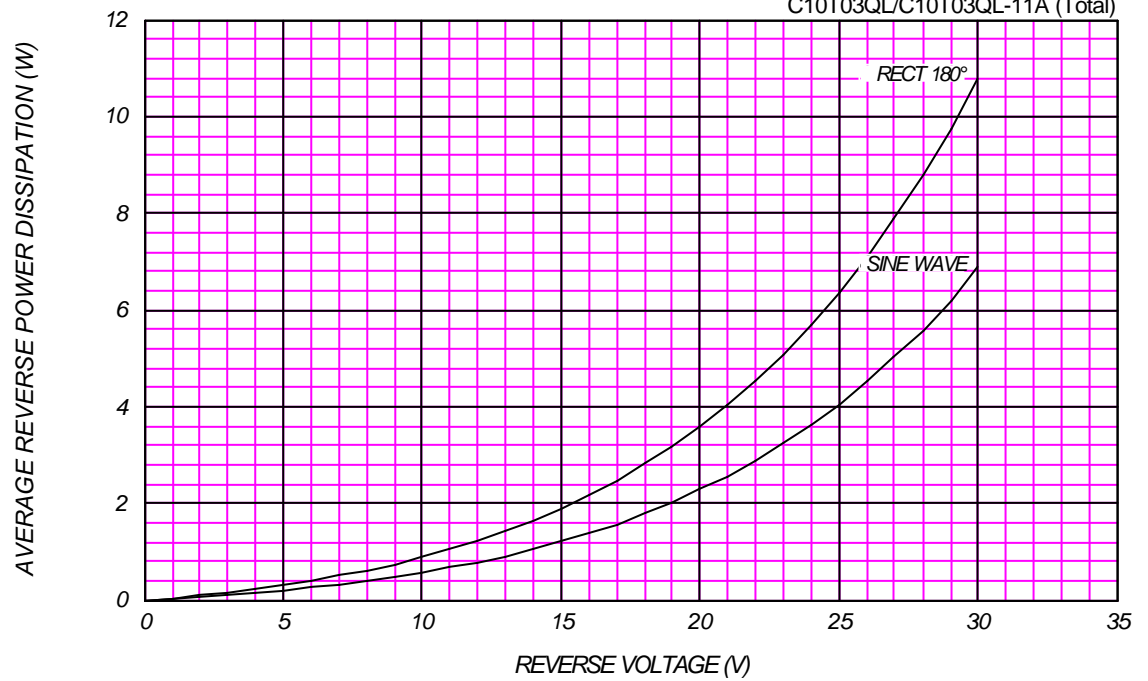
$T_j = 150^\circ\text{C}$

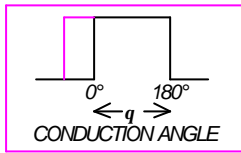
C10T03QL/C10T03QL-11A (per Arm)



AVERAGE REVERSE POWER DISSIPATION

C10T03QL/C10T03QL-11A (Total)

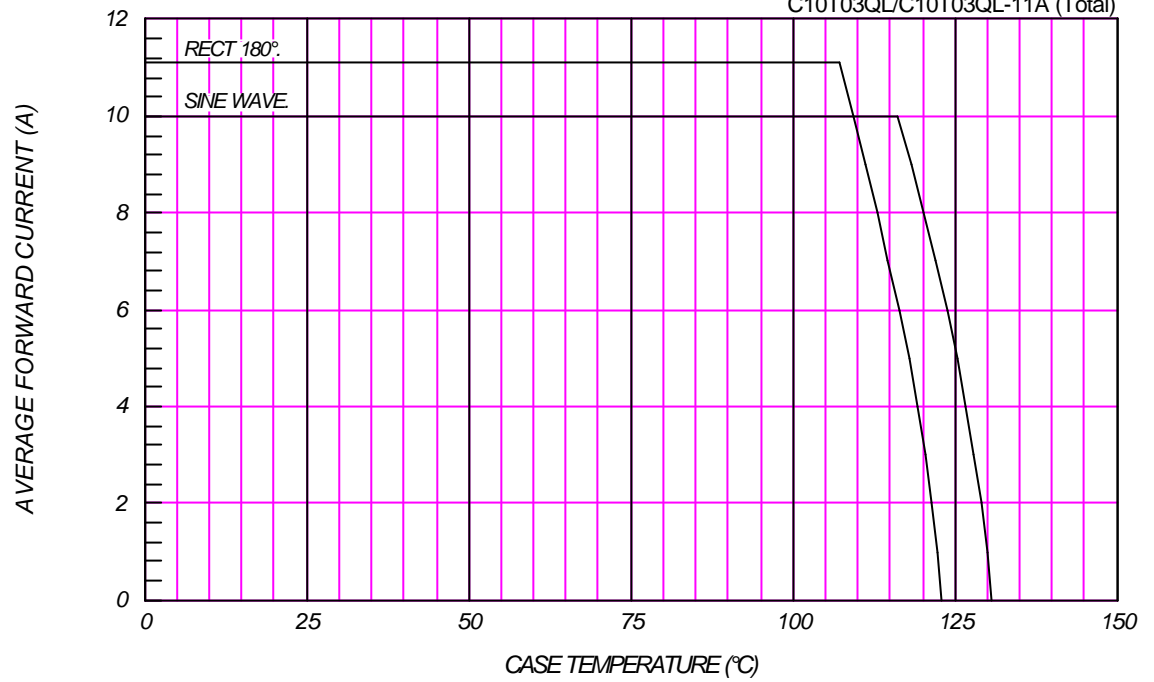




AVERAGE FORWARD CURRENT VS. CASE TEMPERATURE

$V_{RM}=30V$

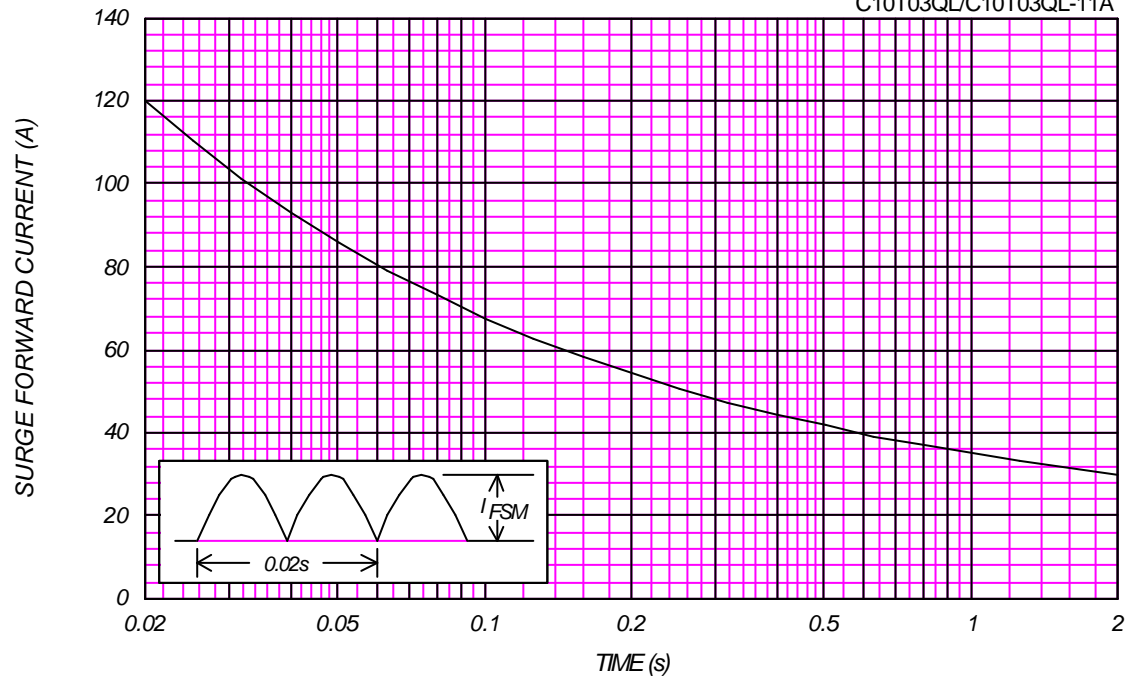
C10T03QL/C10T03QL-11A (Total)



SURGE CURRENT RATINGS

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

C10T03QL/C10T03QL-11A



JUNCTION CAPACITANCE VS. REVERSE VOLTAGE

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

C10T03QL/C10T03QL-11A (per Arm)

