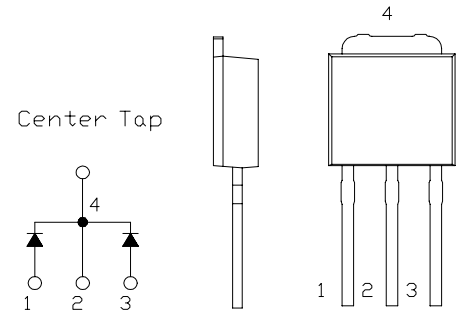


# SBD Type : ECL06B03

## OUTLINE DRAWING

### FEATURES

- \* TO-251AA Case
- \* Dual Diodes Cathode Common
- \* Extremely Low Forward Voltage drop
- \* Low Power Loss, High Efficiency
- \* High Surge Capability



### Maximum Ratings

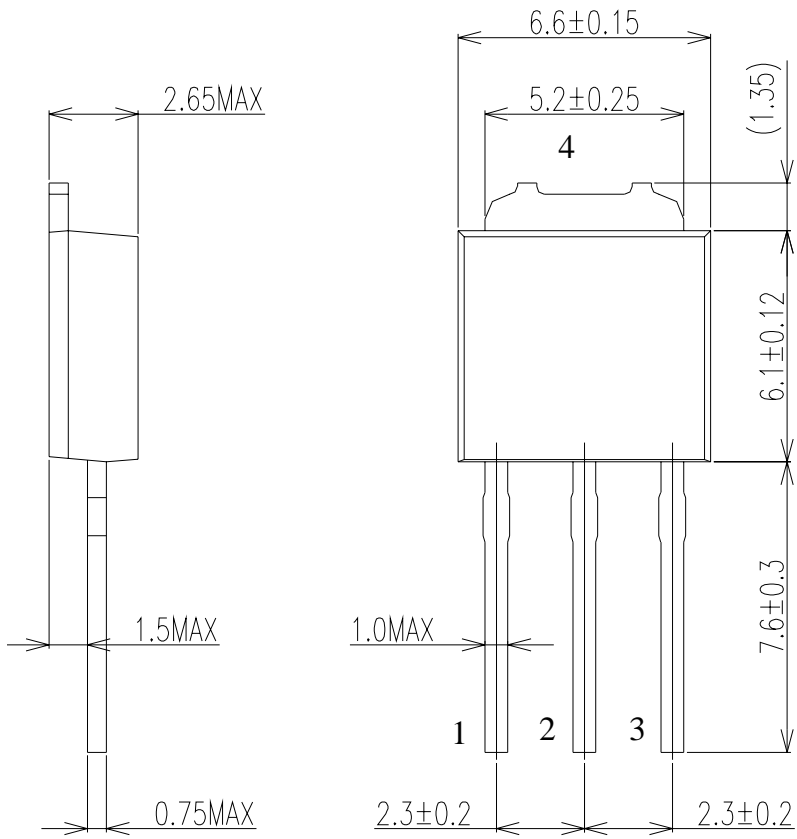
Approx Net Weight:0.35g

| Rating                               | Symbol       | ECL06B03      |                                             |                                    | Unit             |
|--------------------------------------|--------------|---------------|---------------------------------------------|------------------------------------|------------------|
| Repetitive Peak Reverse Voltage      | $V_{RRM}$    | 30            |                                             |                                    | V                |
| Average Rectified Output Current     | $I_O$        | 6.0           | $T_c=70^\circ\text{C}$                      | 50Hz Full Sine Wave Resistive Load | A                |
| RMS Forward Current                  | $I_{F(RMS)}$ | 6.66          |                                             |                                    | A                |
| Surge Forward Current                | $I_{FSM}$    | 45            | 50Hz Full Sine Wave, 1cycle, Non-repetitive |                                    | A                |
| Operating Junction Temperature Range | $T_{jw}$     | - 40 to + 100 |                                             |                                    | $^\circ\text{C}$ |
| Storage Temperature Range            | $T_{stg}$    | - 40 to + 125 |                                             |                                    | $^\circ\text{C}$ |

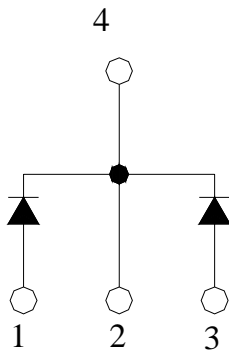
### Electrical • Thermal Characteristics

| Characteristics      | Symbol           | Conditions                                          | Min | Typ | Max  | Unit               |
|----------------------|------------------|-----------------------------------------------------|-----|-----|------|--------------------|
| Peak Reverse Current | $I_{RM}$         | $T_j=25^\circ\text{C}, V_{RM}=V_{RRM}$ per Arm      | -   | -   | 3.0  | mA                 |
| Peak Forward Voltage | $V_{FM}$         | $T_j=25^\circ\text{C}, I_{FM}= 3 \text{ A}$ per Arm | -   | -   | 0.47 | V                  |
| Thermal Resistance   | Junction to Case | $R_{th(j-c)}$                                       | -   | -   | 5    | $^\circ\text{C/W}$ |

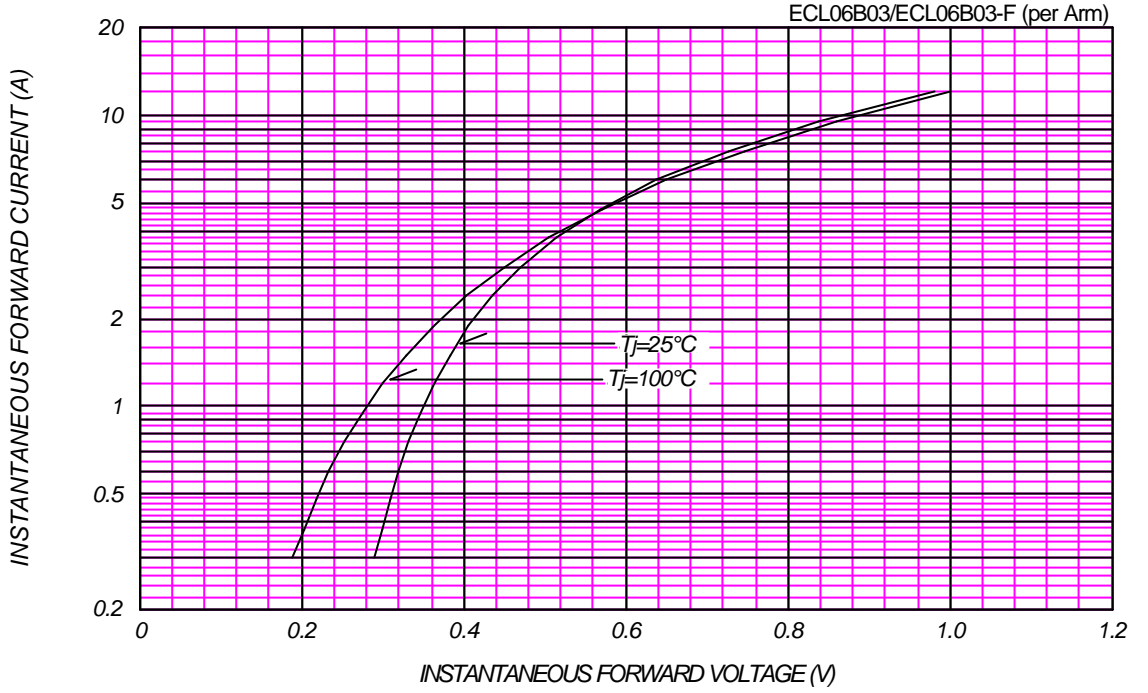
ECL06B03 OUTLINE DRAWING (Dimensions in mm)



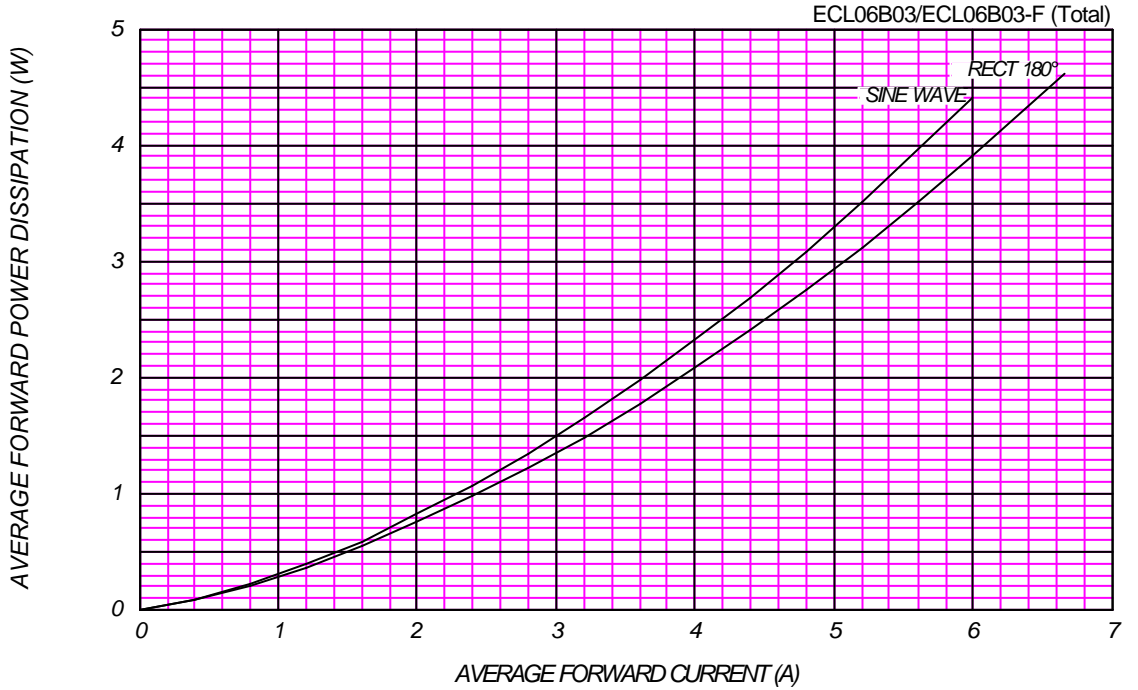
Center Tap



FORWARD CURRENT VS. VOLTAGE



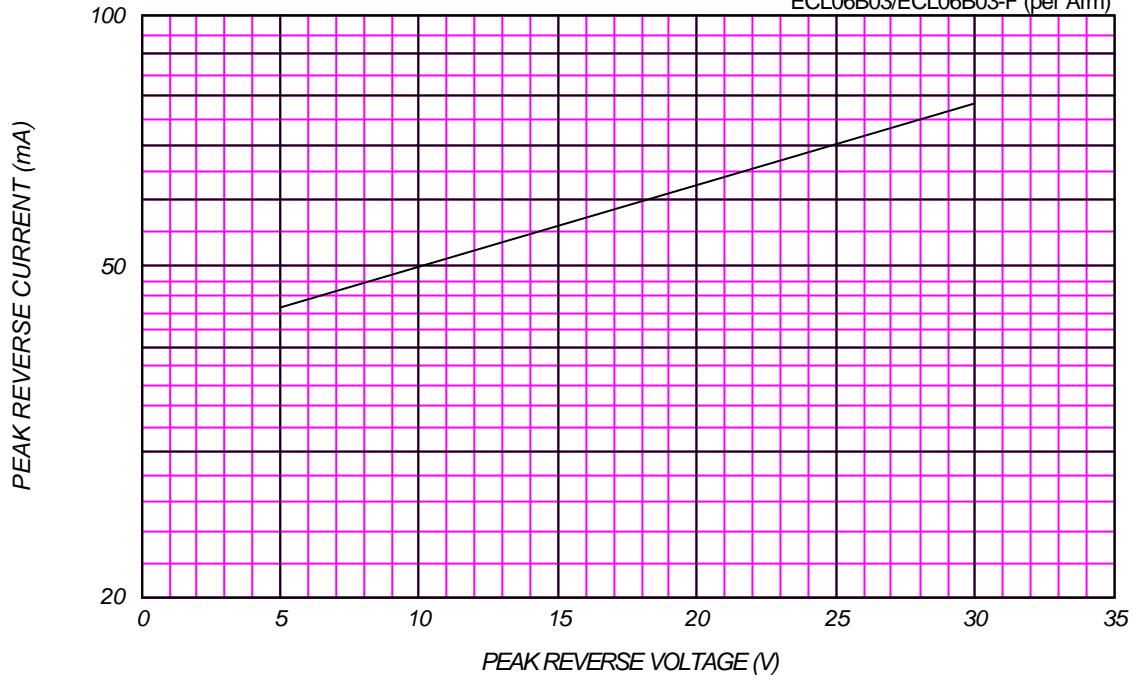
AVERAGE FORWARD POWER DISSIPATION



PEAK REVERSE CURRENT VS. PEAK REVERSE VOLTAGE

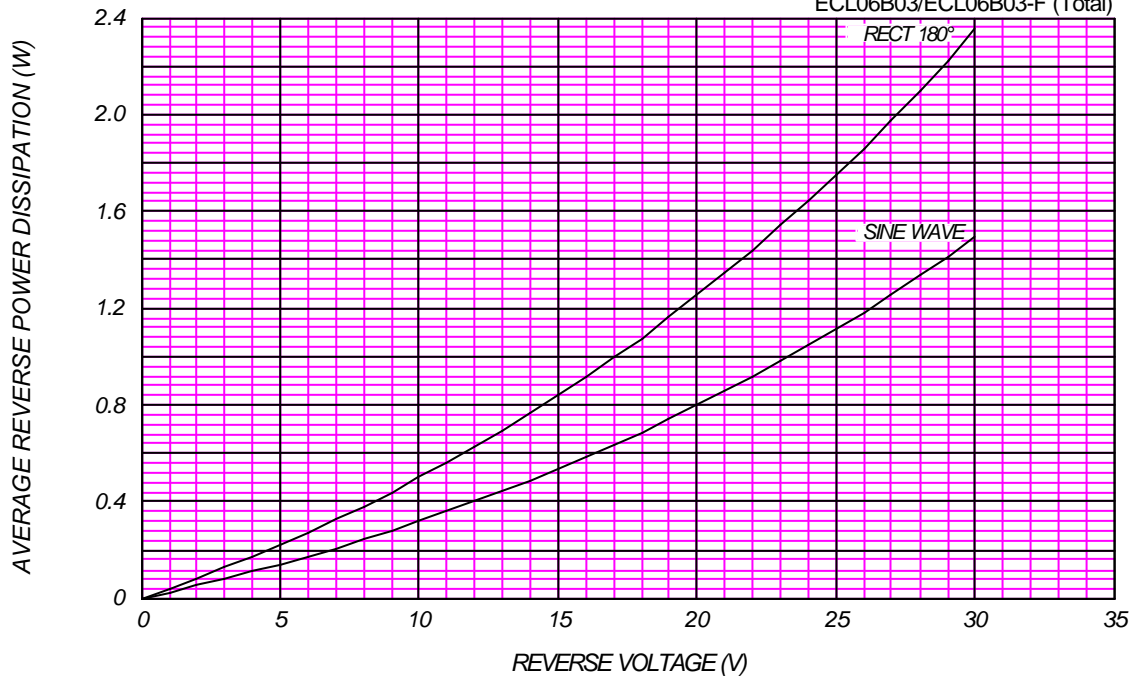
$T_j = 100\text{ }^\circ\text{C}$

ECL06B03/ECL06B03-F (per Arm)



AVERAGE REVERSE POWER DISSIPATION

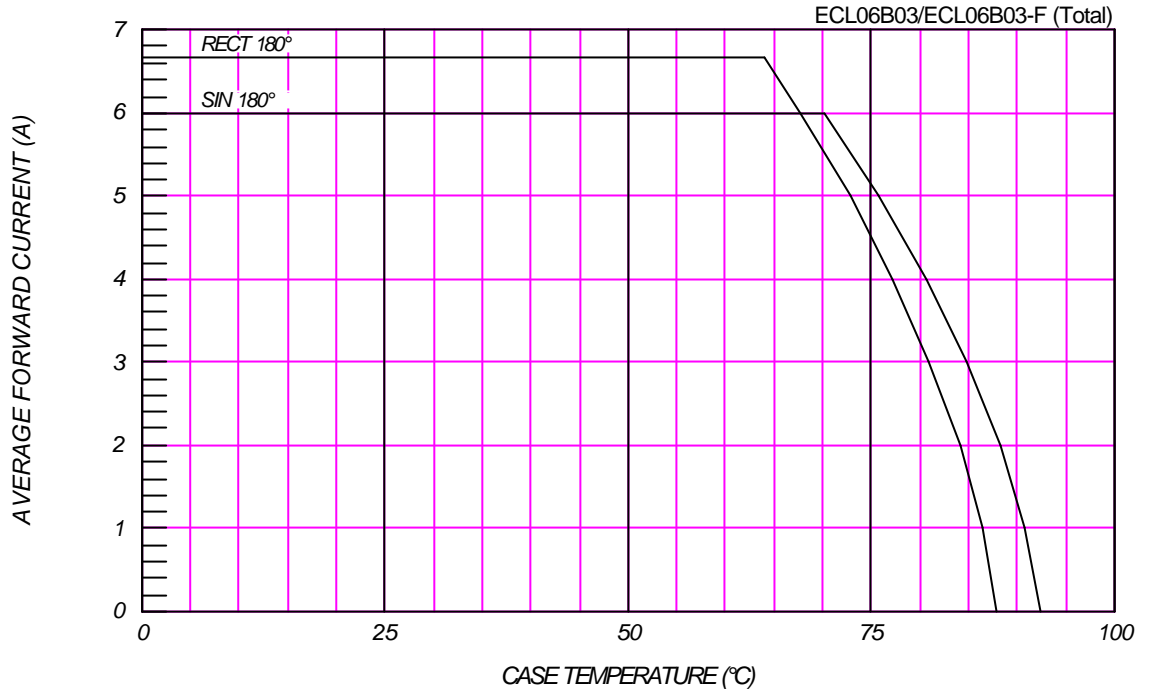
ECL06B03/ECL06B03-F (Total)





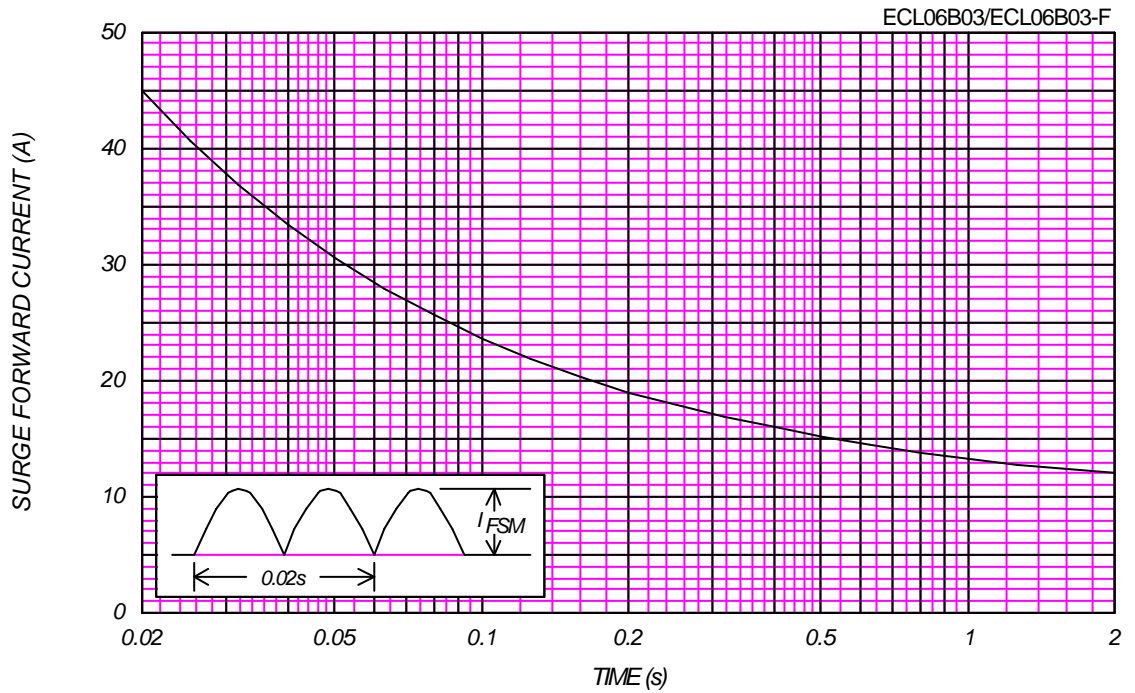
### AVERAGE FORWARD CURRENT VS. CASE TEMPERATURE

$V_{RM} = 30$



### 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

ECL06B03/ECL06B03-F (per Arm)

