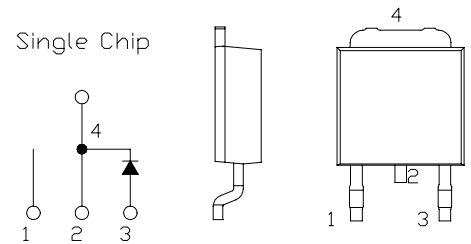


SBD Type : EA30QS03L-F

OUTLINE DRAWING

FEATURES

- * TO-252AA Case, Surface Mounting Device
- * Extremely Low Forward Voltage drop
- * Low Power Loss, High Efficiency
- * High Surge Capability
- * Packaged in 16mm Tape and Reel



Maximum Ratings

Approx Net Weight:0.30g

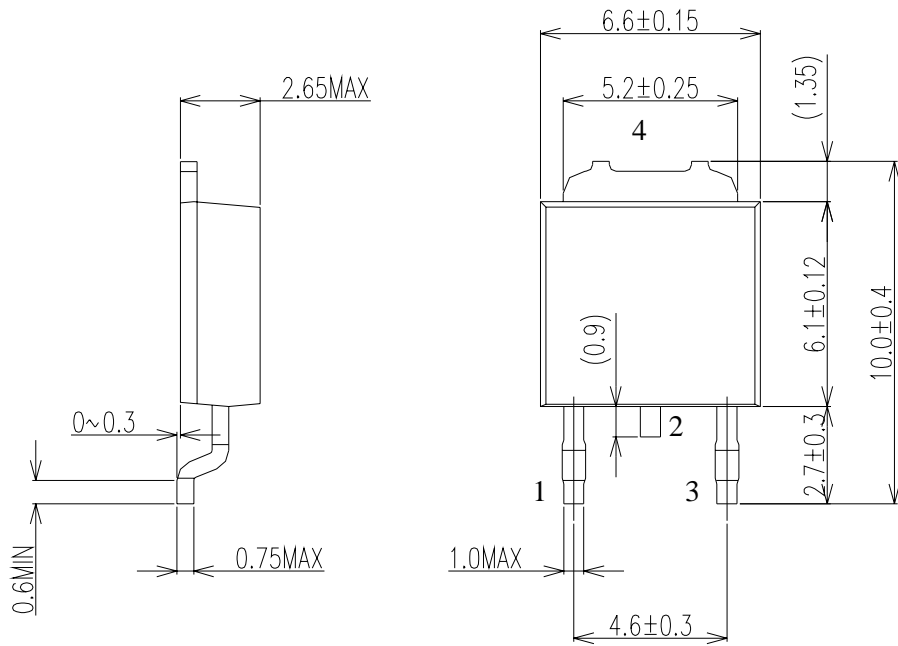
| Rating | Symbol | EA30QS03L-F | | Unit |
|--------------------------------------|--------------|---------------|---|------------------------------------|
| Repetitive Peak Reverse Voltage | V_{RRM} | 30 | | V |
| Average Rectified Output Current | I_O | 1.7 | $T_a=32^{\circ}\text{C}$ *1 | 50Hz Half Sine Wave Resistive Load |
| | | 3.0 | $T_c=126^{\circ}\text{C}$ | |
| RMS Forward Current | $I_{F(RMS)}$ | 4.71 | | A |
| Surge Forward Current | I_{FSM} | 45 | 50Hz Half Sine Wave, 1cycle, Non-repetitive | A |
| Operating Junction Temperature Range | T_{jw} | - 40 to + 150 | | $^{\circ}\text{C}$ |
| Storage Temperature Range | T_{stg} | - 40 to + 150 | | $^{\circ}\text{C}$ |

Electrical • Thermal Characteristics

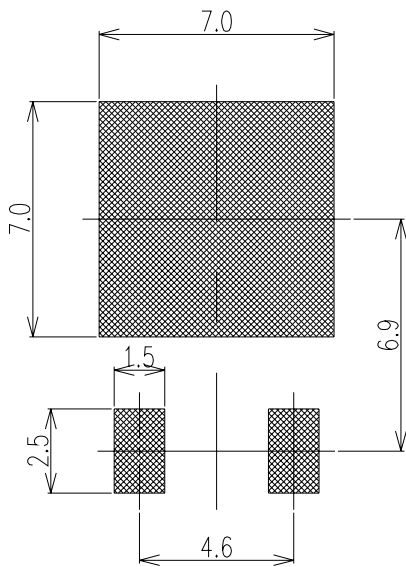
| Characteristics | | Symbol | Conditions | Min | Typ | Max | Unit |
|----------------------|---------------------|---------------|---|-----|-----|------|----------------------|
| Peak Reverse Current | | I_{RM} | $T_j=25^{\circ}\text{C}, V_{RM}=V_{RRM}$ | - | - | 3.0 | mA |
| Peak Forward Voltage | | V_{FM} | $T_j=25^{\circ}\text{C}, I_{FM}= 3 \text{ A}$ | - | - | 0.45 | V |
| Thermal Resistance | Junction to Ambient | $R_{th(j-a)}$ | P.C.Board mounted *1 | - | - | 80 | $^{\circ}\text{C/W}$ |
| | Junction to Case | $R_{th(j-c)}$ | - | - | - | 6 | $^{\circ}\text{C/W}$ |

*1: P.C.Board mounted, Print Land = 20x20 mm

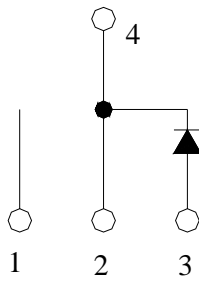
EA30QS03L-F OUTLINE DRAWING (Dimensions in mm)



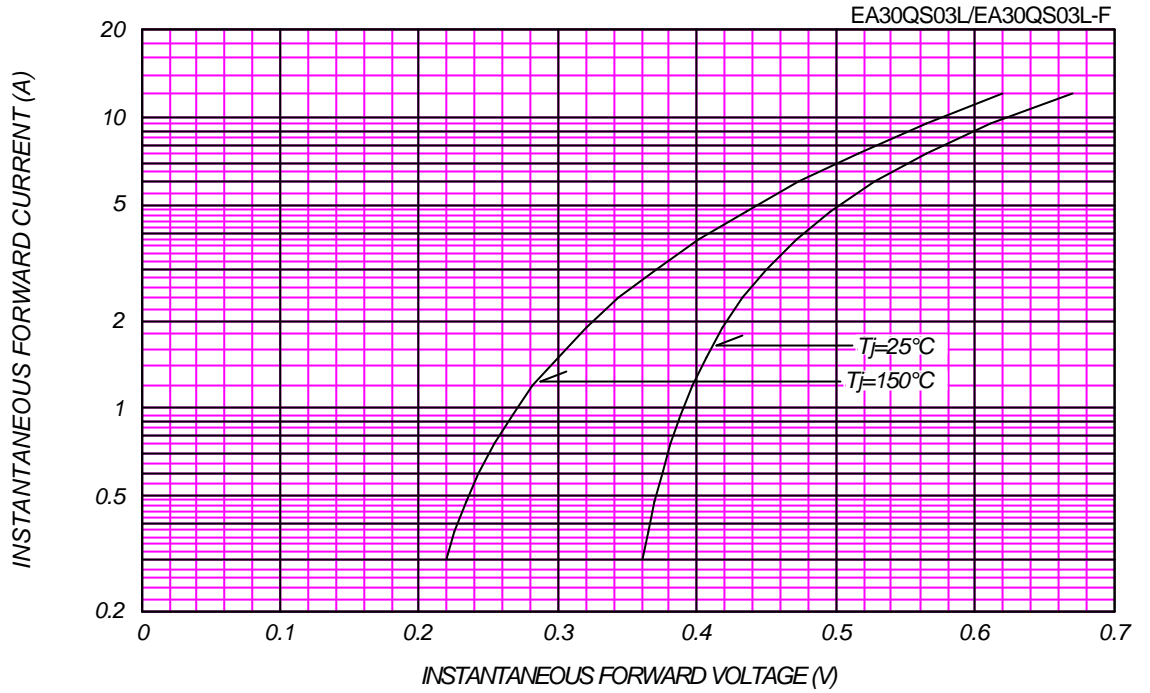
Soldering PAD



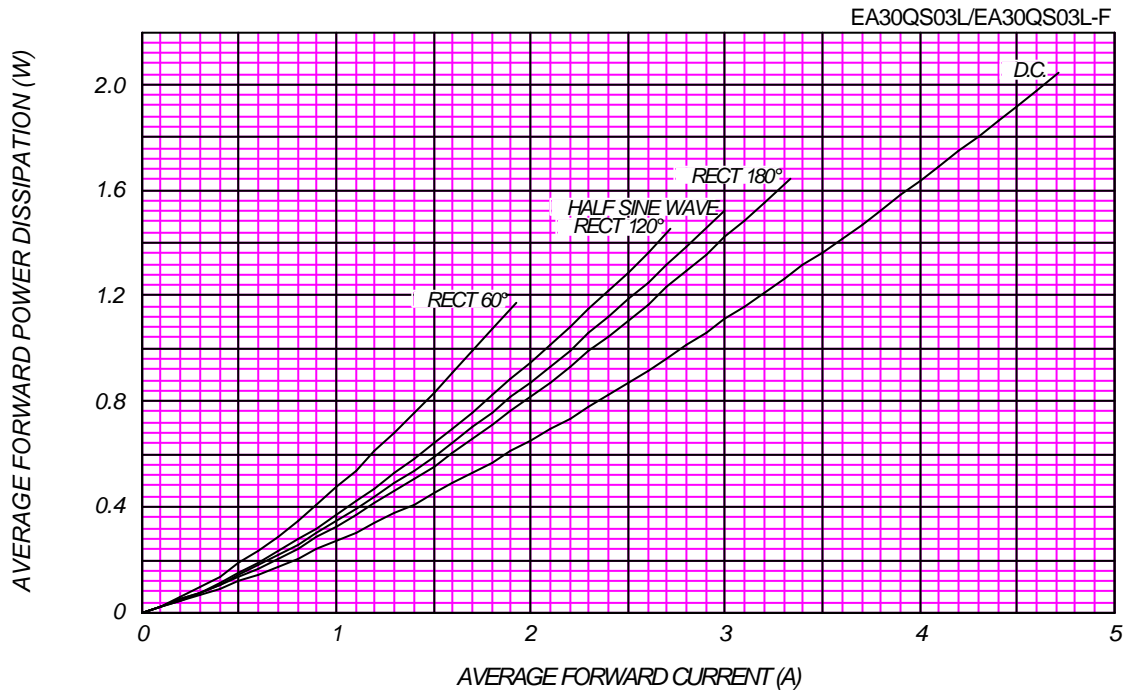
Single



FORWARD CURRENT VS. VOLTAGE



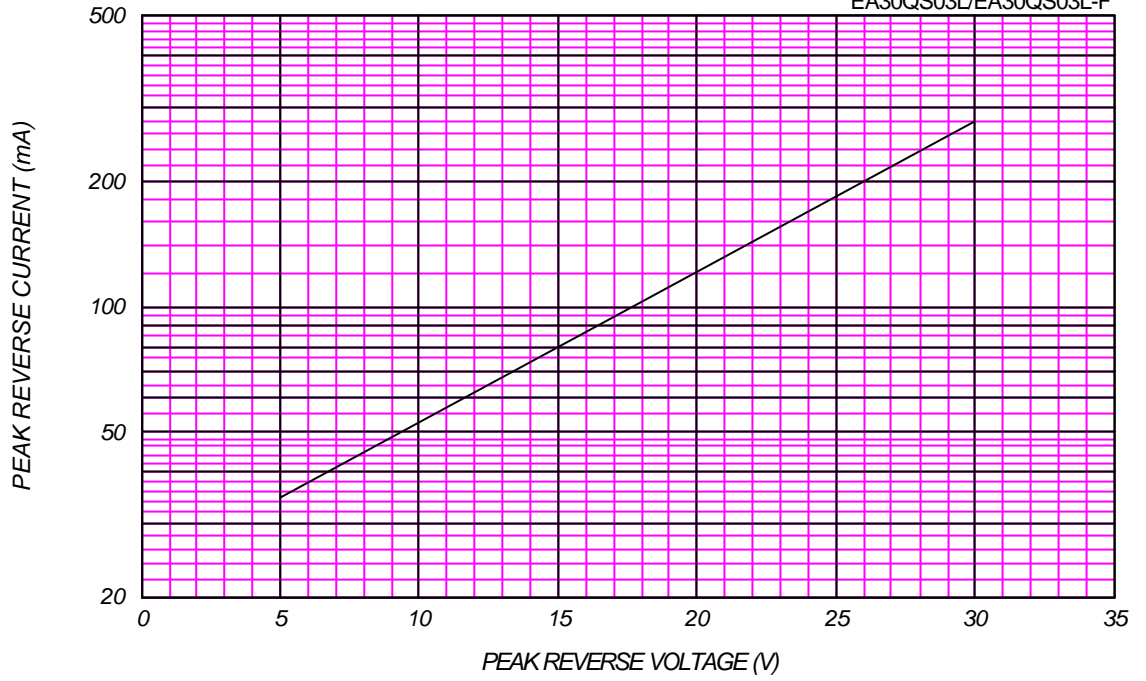
AVERAGE FORWARD POWER DISSIPATION



PEAK REVERSE CURRENT VS. PEAK REVERSE VOLTAGE

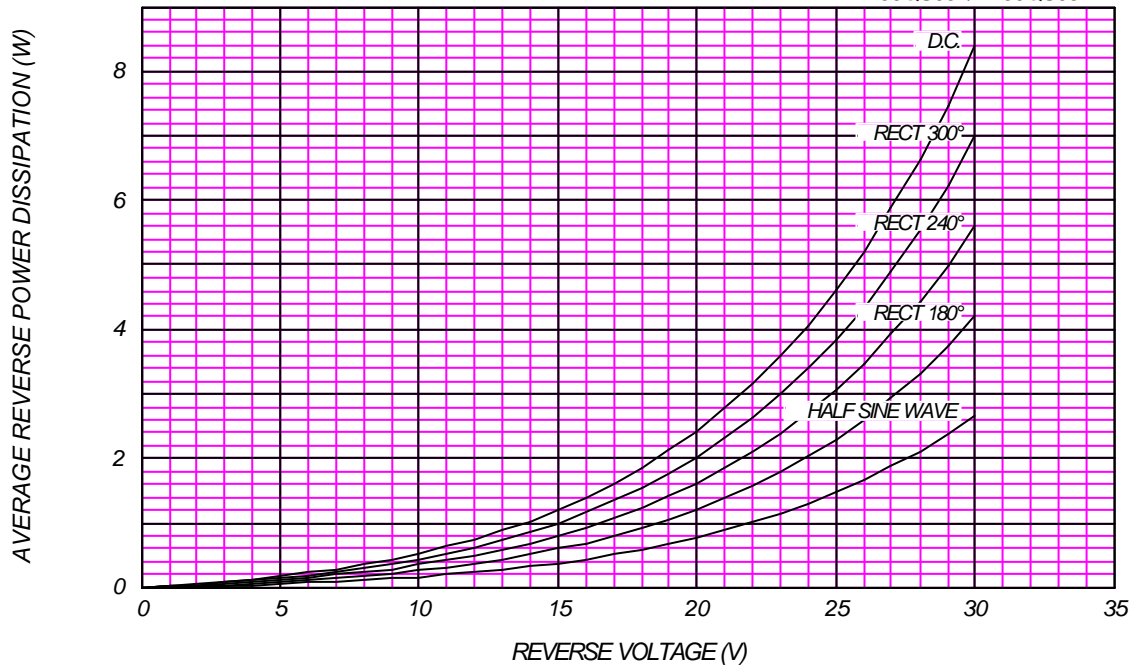
$T_j = 150\text{ }^\circ\text{C}$

EA30QS03L/EA30QS03L-F



AVERAGE REVERSE POWER DISSIPATION

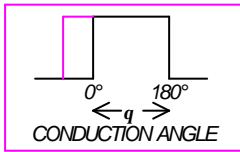
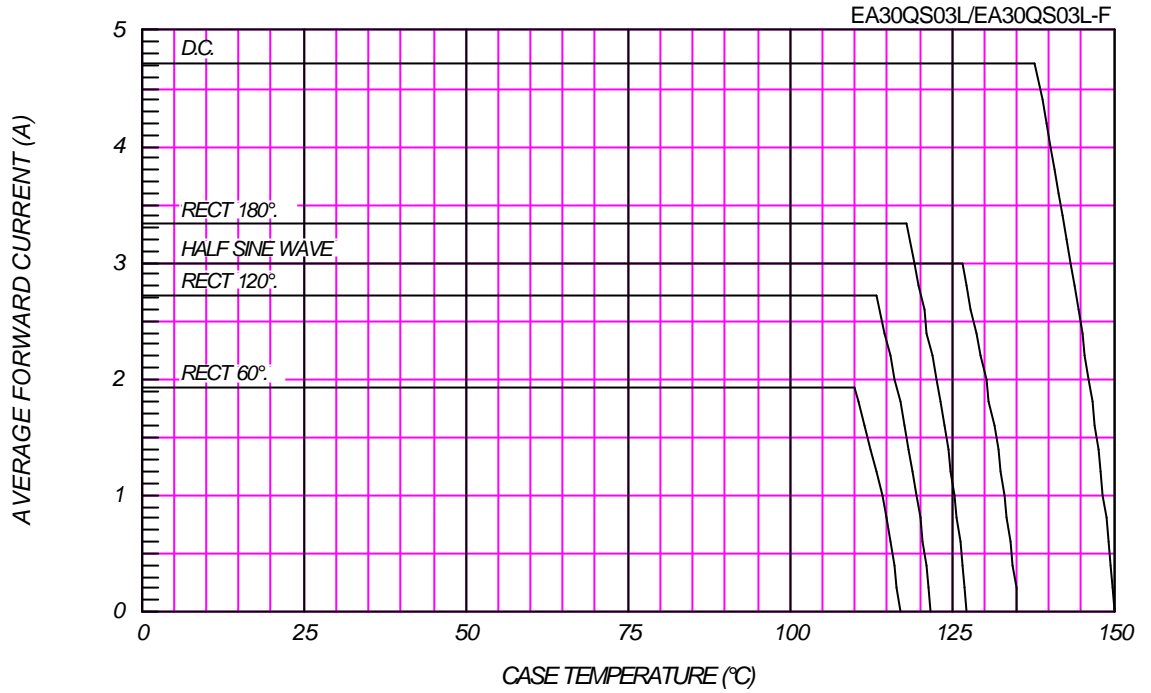
EA30QS03L/EA30QS03L-F





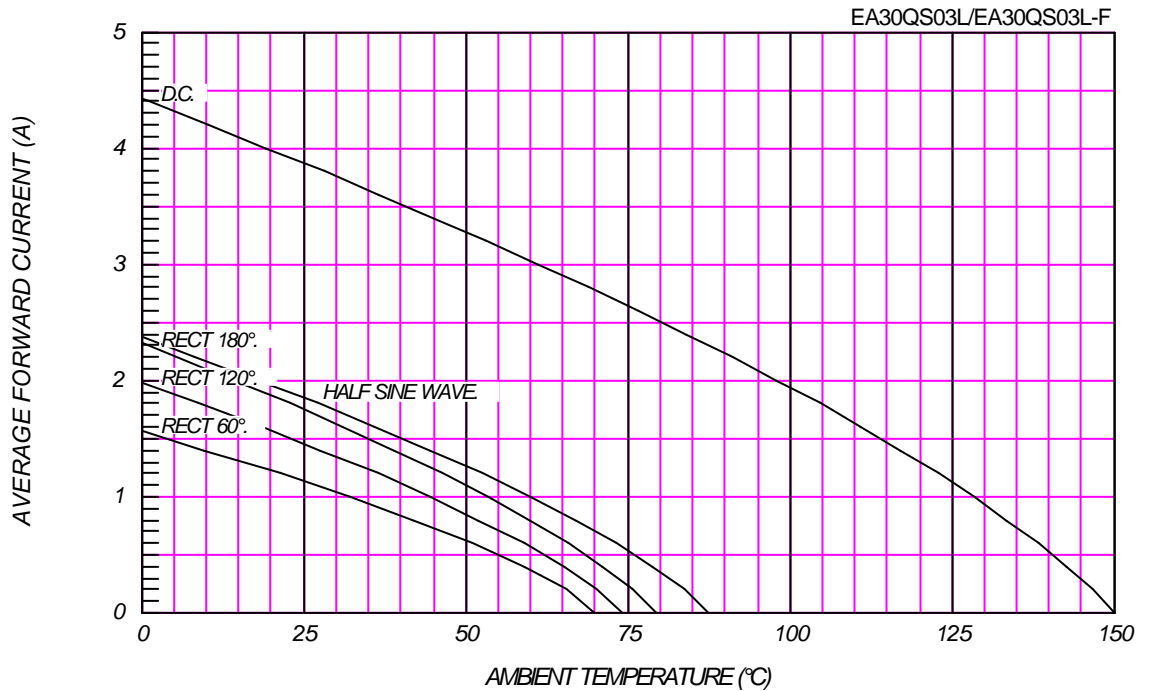
AVERAGE FORWARD CURRENT VS. CASE TEMPERATURE

$V_{RM}=30V$



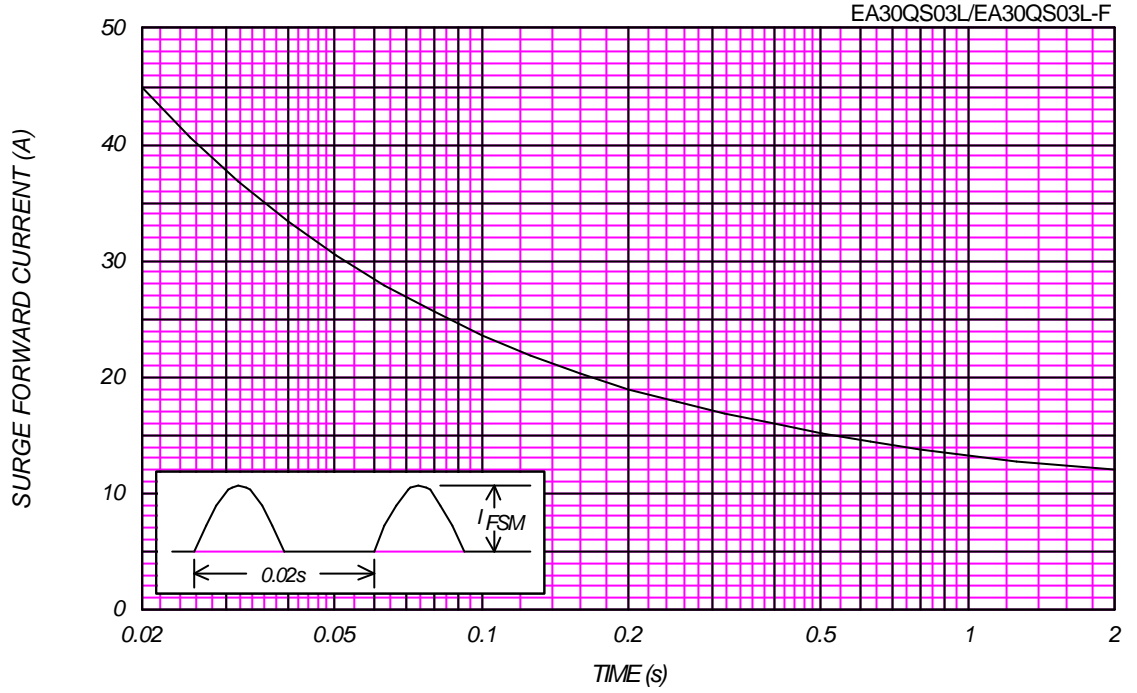
AVERAGE FORWARD CURRENT VS. AMBIENT TEMPERATURE

P.C. Board mounted (Plint land=20x20mm)



SURGE CURRENT RATINGS

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



JUNCTION CAPACITANCE VS. REVERSE VOLTAGE

T_j=25° C,V_m=20mV_{RMS},f=100kHz,Typical Value

