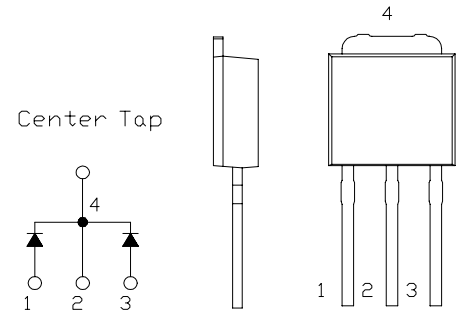


# SBD Type : EA60QC03L

## OUTLINE DRAWING

### FEATURES

- \* TO-251AA Case
- \* Dual Diodes Cathode Common
- \* Low Forward Voltage drop
- \* Low Power Loss
- \* High Surge Capability
- \* 30 Volts thru 100 Volts Types Available



### Maximum Ratings

Approx Net Weight:0.35g

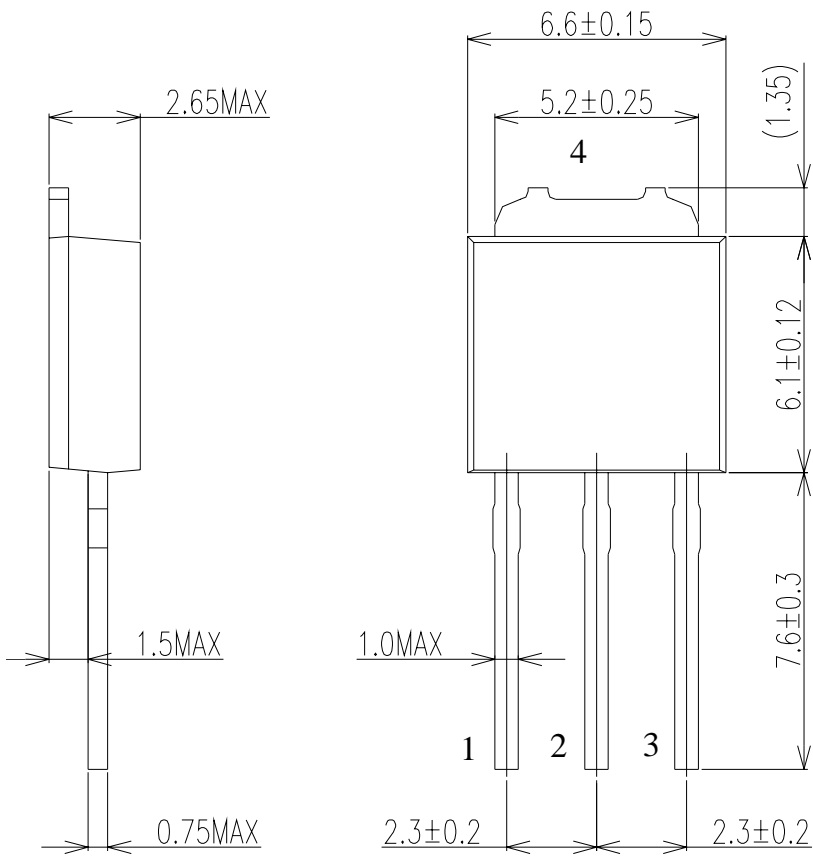
Rating		Symbol	EA60QC03L			Unit
Repetitive Peak Reverse Voltage		$V_{RRM}$	30			V
Average Rectified Output Current	P.C.Board mounted *	$I_O$	2.0	$T_a=20^{\circ}\text{C}$	50Hz Full Sine Wave Resistive Load	A
	-		6.0	$T_c=111^{\circ}\text{C}$		
RMS Forward Current		$I_{F(RMS)}$	6.66			A
Surge Forward Current		$I_{FSM}$	45	50Hz Full Sine Wave, 1cycle, Non-repetitive		A
Operating Junction Temperature Range		$T_{jw}$	- 40 to + 150			$^{\circ}\text{C}$
Storage Temperature Range		$T_{stg}$	- 40 to + 150			$^{\circ}\text{C}$

### Electrical • Thermal Characteristics

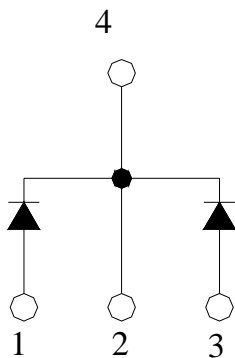
Characteristics		Symbol	Conditions	Min	Typ	Max	Unit
Peak Reverse Current		$I_{RM}$	$T_j=25^{\circ}\text{C}, V_{RM}=V_{RRM}$ per Arm	-	-	3.0	mA
Peak Forward Voltage		$V_{FM}$	$T_j=25^{\circ}\text{C}, I_{FM}= 3 \text{ A}$ per Arm	-	-	0.45	V
Thermal Resistance	Junction to Ambient	$R_{th(j-a)}$	P.C.Board mounted *	-	-	80	$^{\circ}\text{C/W}$
	Junction to Case	$R_{th(j-c)}$	-	-	-	5	$^{\circ}\text{C/W}$

\* Print Land = 20x20 mm

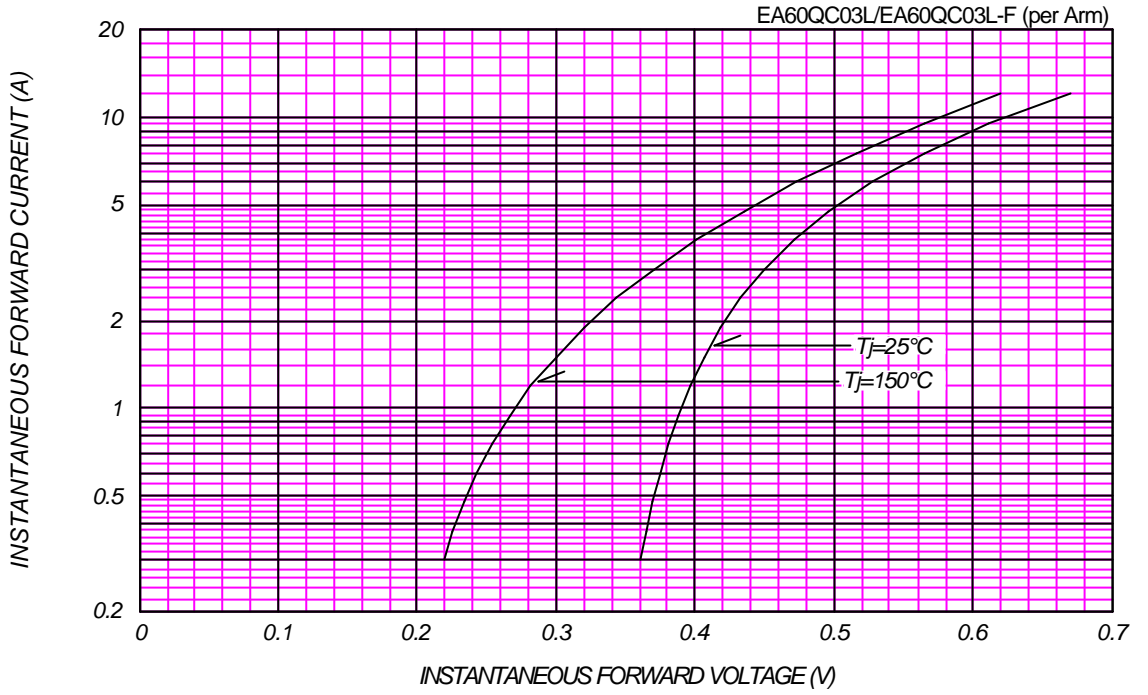
EA60QC03L OUTLINE DRAWING (Dimensions in mm)



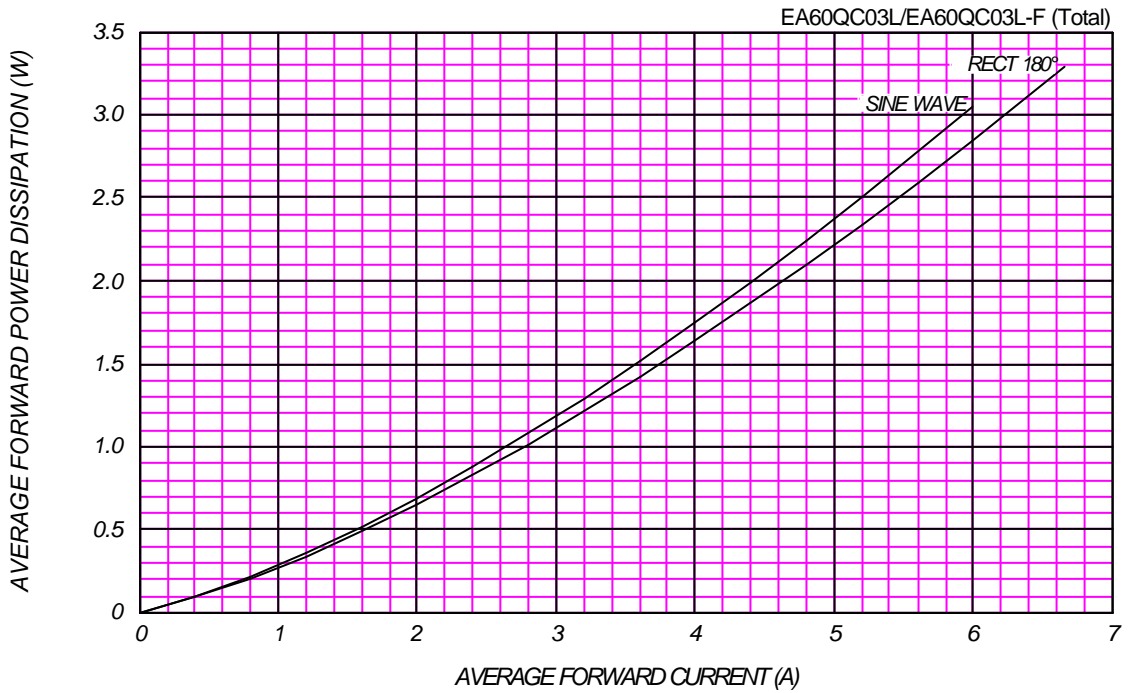
Center Tap



FORWARD CURRENT VS. VOLTAGE



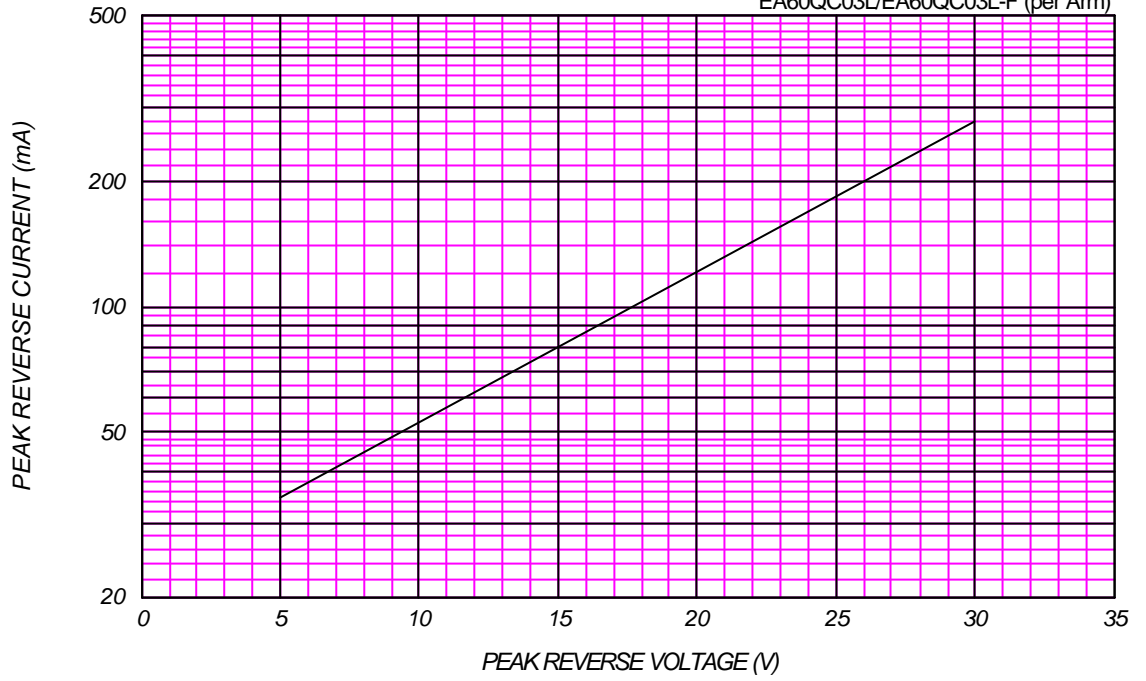
AVERAGE FORWARD POWER DISSIPATION



PEAK REVERSE CURRENT VS. PEAK REVERSE VOLTAGE

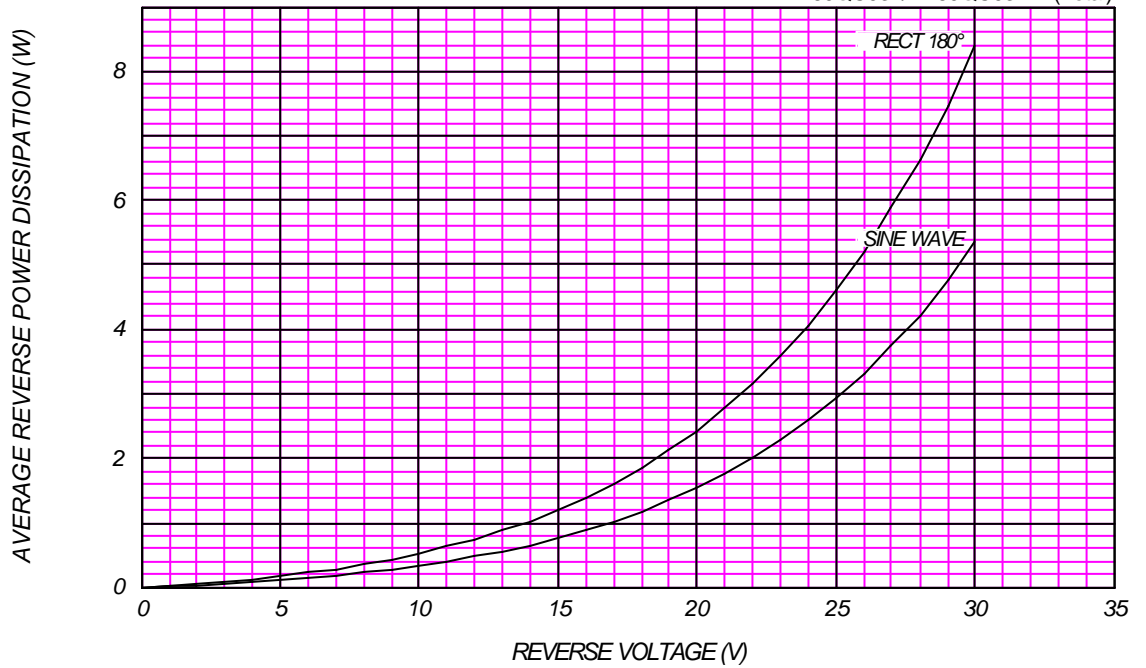
T<sub>j</sub> = 150 °C

EA60QC03L/EA60QC03L-F (per Arm)



AVERAGE REVERSE POWER DISSIPATION

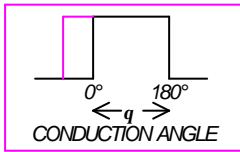
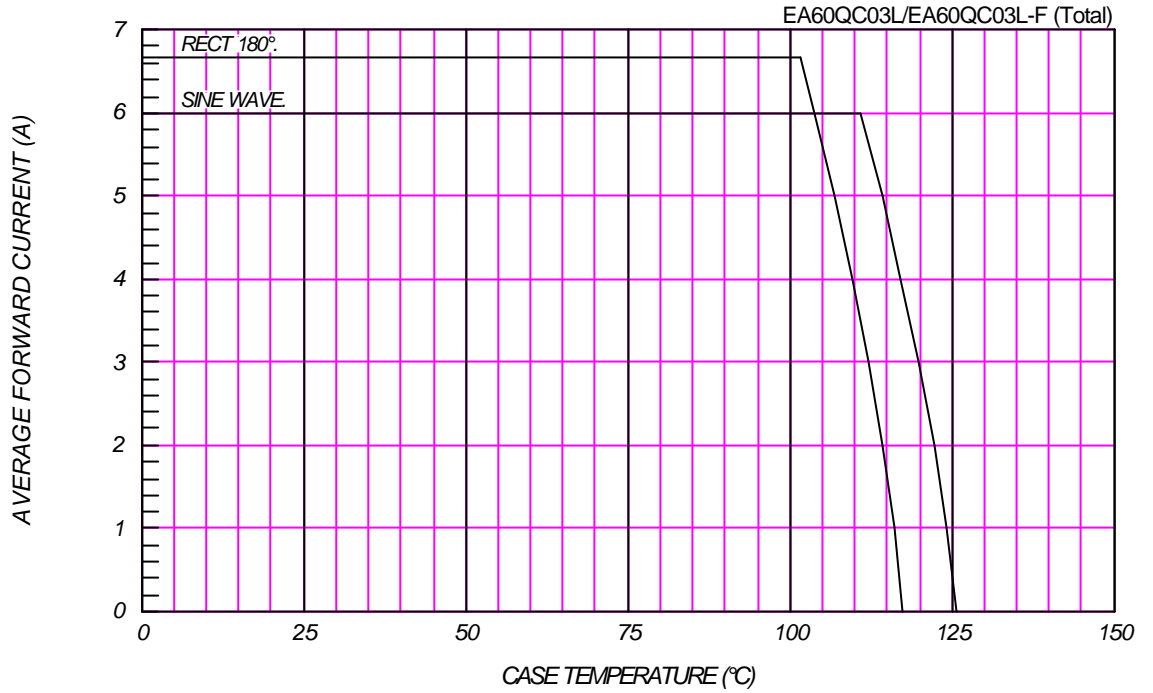
EA60QC03L/EA60QC03L-F (Total)





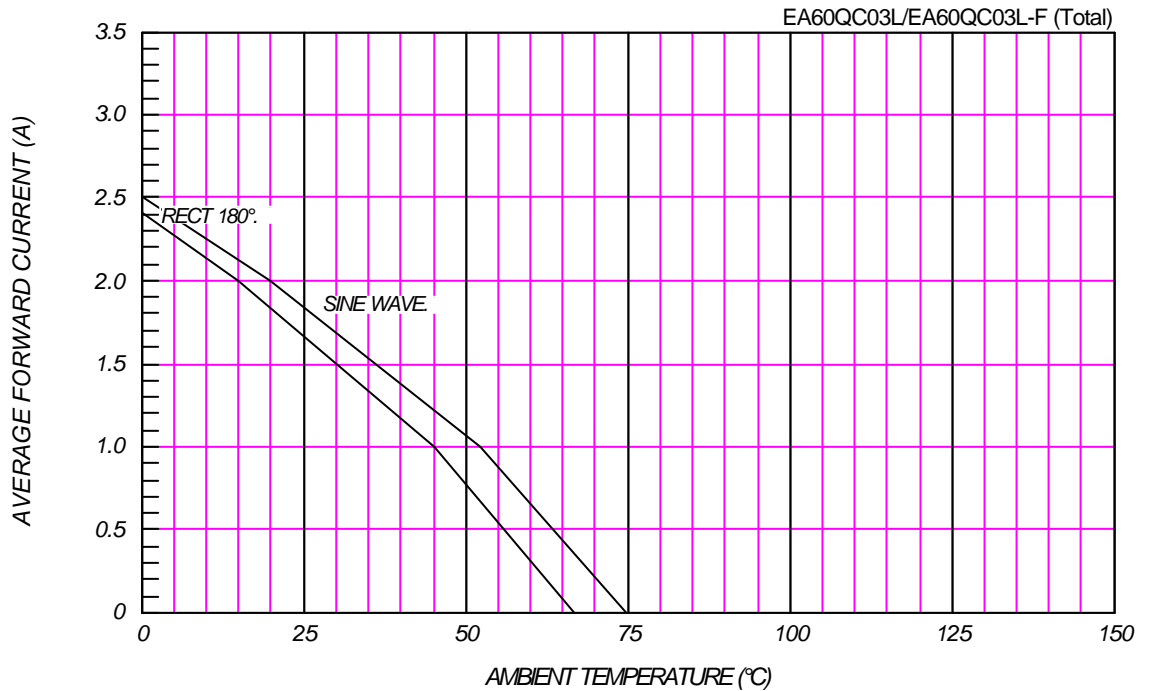
AVERAGE FORWARD CURRENT VS. CASE TEMPERATURE

$V_{RM}=30V$



AVERAGE FORWARD CURRENT VS. AMBIENT TEMPERATURE

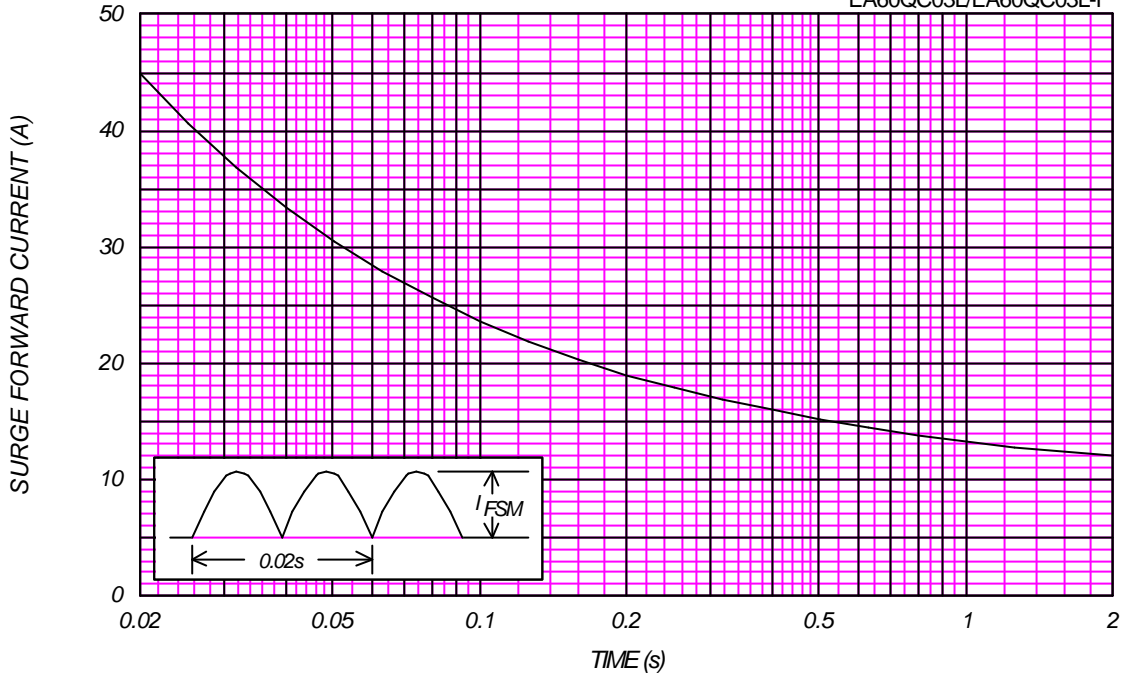
P.C. Board mounted (Plint land=20x20mm)



### SURGE CURRENT RATINGS

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

EA60QC03L/EA60QC03L-F



### JUNCTION CAPACITANCE VS. REVERSE VOLTAGE

T<sub>j</sub>=25° C,V<sub>m</sub>=20mV<sub>RMS</sub>,f=100kHz,Typical Value

EA60QC03L/EA60QC03L-F (per Arm)

