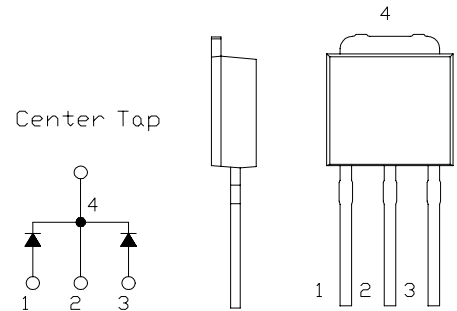


# SBD Type : EA40QC10

## OUTLINE DRAWING

### FEATURES

- \* TO-251AA Case
- \* Dual Diodes Cathode Common
- \* Low Forward Voltage drop
- \* Low Power Loss
- \* High Surge Capability
- \* 40 Volts thru 100 Volts Types Available



### Maximum Ratings

Approx Net Weight:0.35g

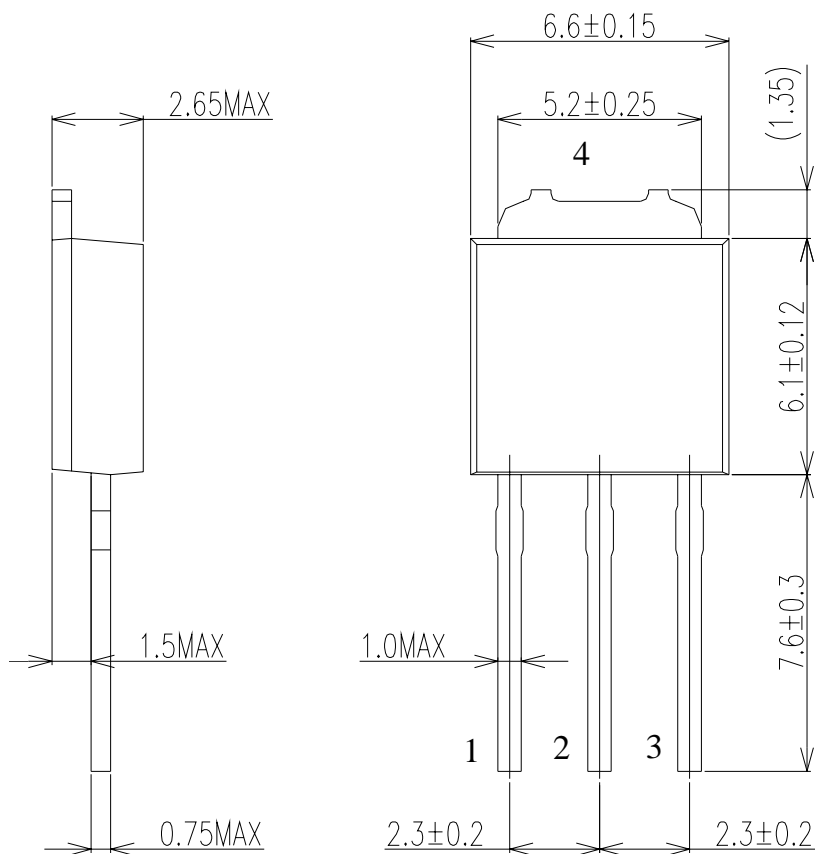
Rating		Symbol	EA40QC10			Unit
Repetitive Peak Reverse Voltage		V <sub>RRM</sub>	100			V
Average Rectified Output Current	P.C.Board mounted *	I <sub>O</sub>	1.6	Ta=35°C	50Hz Full Sine Wave Resistive Load	A
	-		4.0	Tc=129°C		
RMS Forward Current		I <sub>F(RMS)</sub>	4.44			A
Surge Forward Current		I <sub>FSM</sub>	40	50Hz Full Sine Wave,1cycle, Non-repetitive		A
Operating JunctionTemperature Range		T <sub>jw</sub>	- 40 to + 150			°C
Storage Temperature Range		T <sub>stg</sub>	- 40 to + 150			°C

### Electrical • Thermal Characteristics

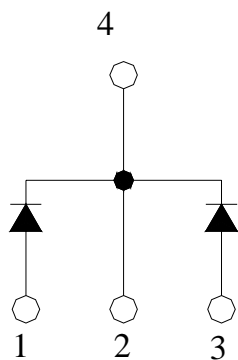
Characteristics		Symbol	Conditions	Min	Typ	Max	Unit
Peak Reverse Current		$I_{RM}$	$T_j=25^{\circ}\text{C}, V_{RM}=V_{RRM}$ per Arm	-	-	1.0	mA
Peak Forward Voltage		$V_{FM}$	$T_j=25^{\circ}\text{C}, I_{FM}= 2 \text{ A}$ per Arm	-	-	0.85	V
Thermal Resistance	Junction to Ambient	$R_{th(j-a)}$	P.C.Board mounted *	-	-	80	$^{\circ}\text{C/W}$
	Junction to Case	$R_{th(j-c)}$	-	-	-	5.5	$^{\circ}\text{C/W}$

\* Print Land = 20x20 mm

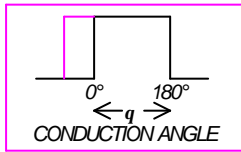
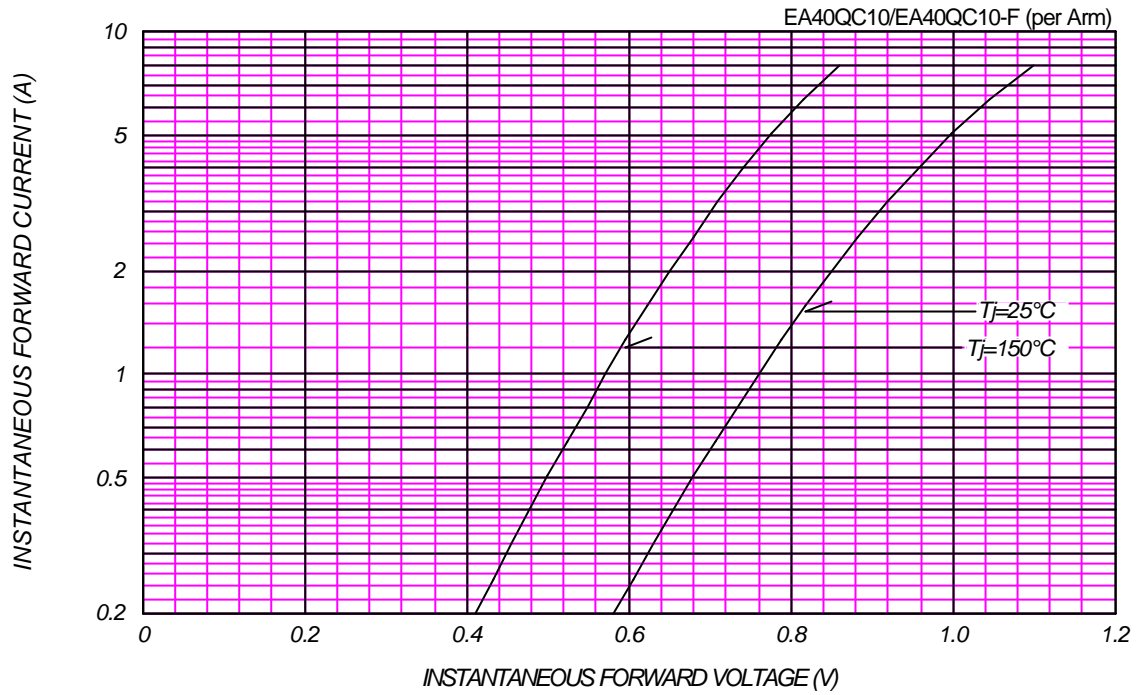
# EA40QC10 OUTLINE DRAWING (Dimensions in mm)



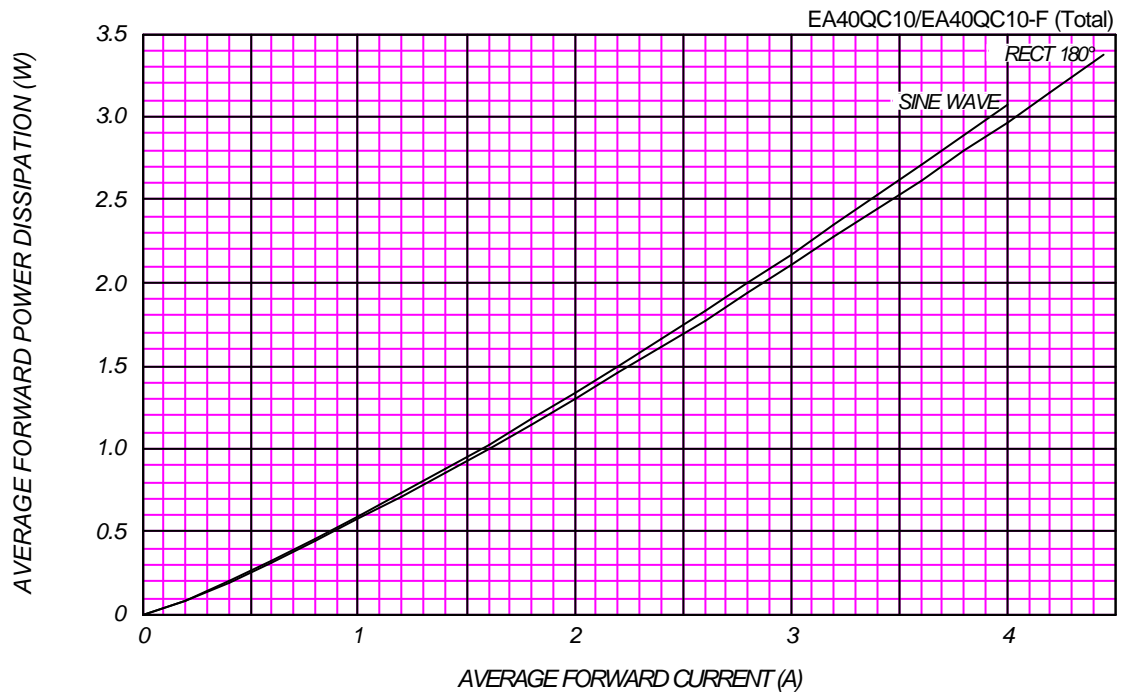
Center Tap



# FORWARD CURRENT VS. VOLTAGE



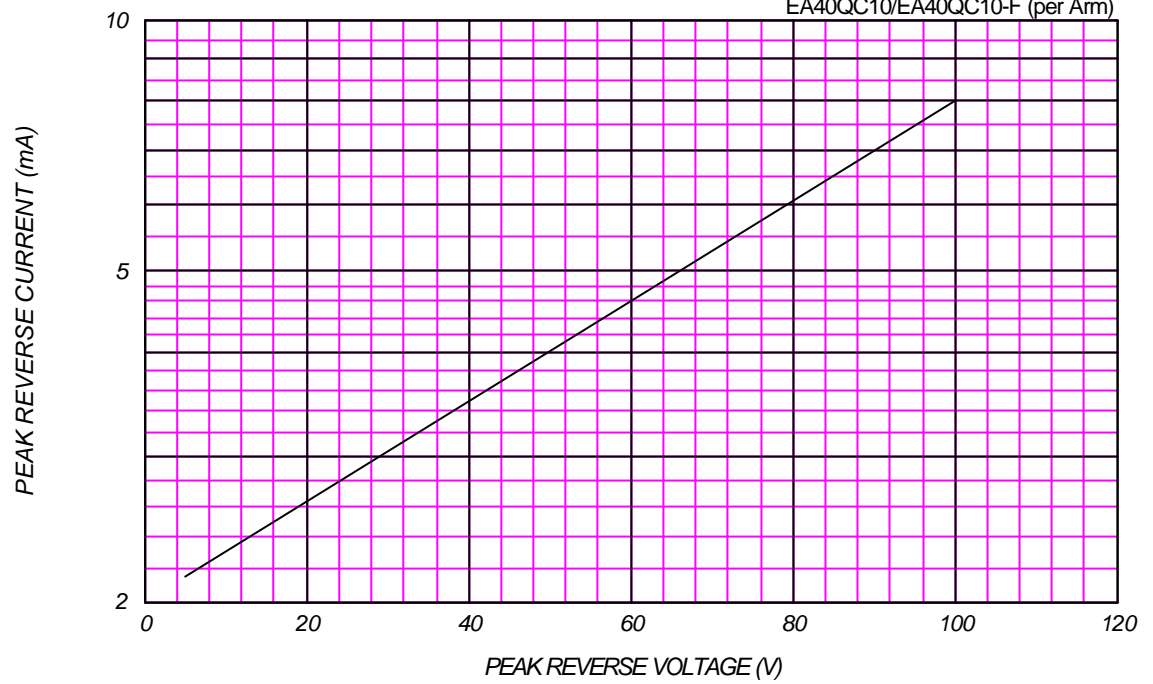
# AVERAGE FORWARD POWER DISSIPATION



### PEAK REVERSE CURRENT VS. PEAK REVERSE VOLTAGE

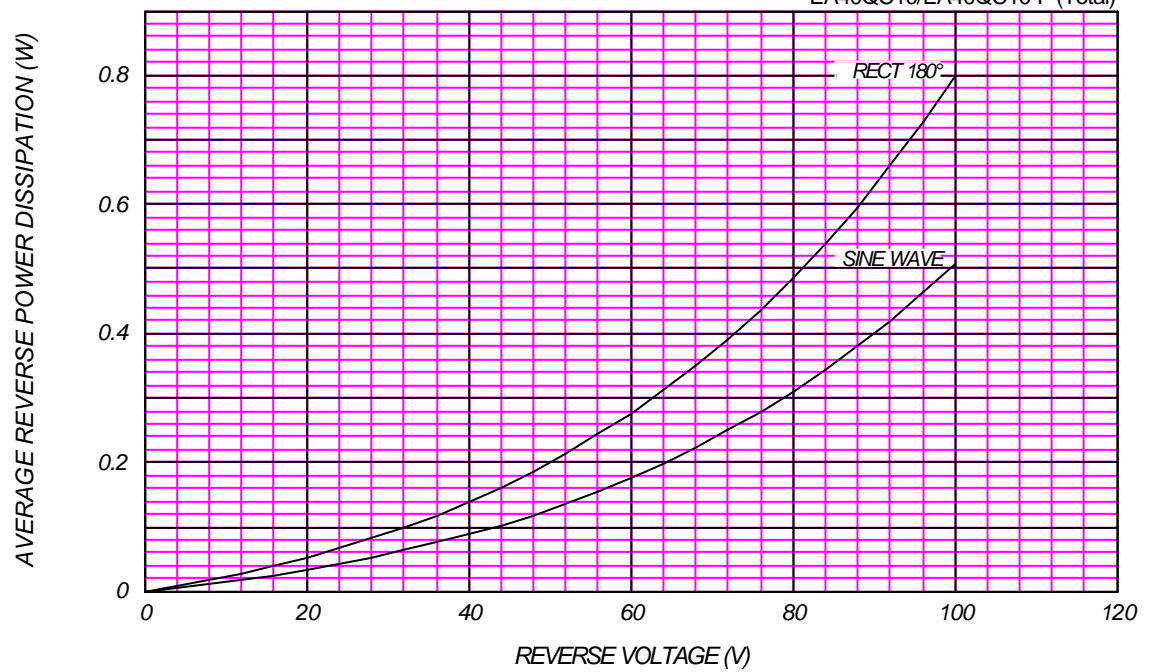
$T_j = 150\text{ }^{\circ}\text{C}$

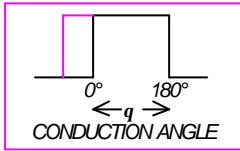
EA40QC10/EA40QC10-F (per Arm)



### AVERAGE REVERSE POWER DISSIPATION

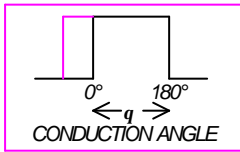
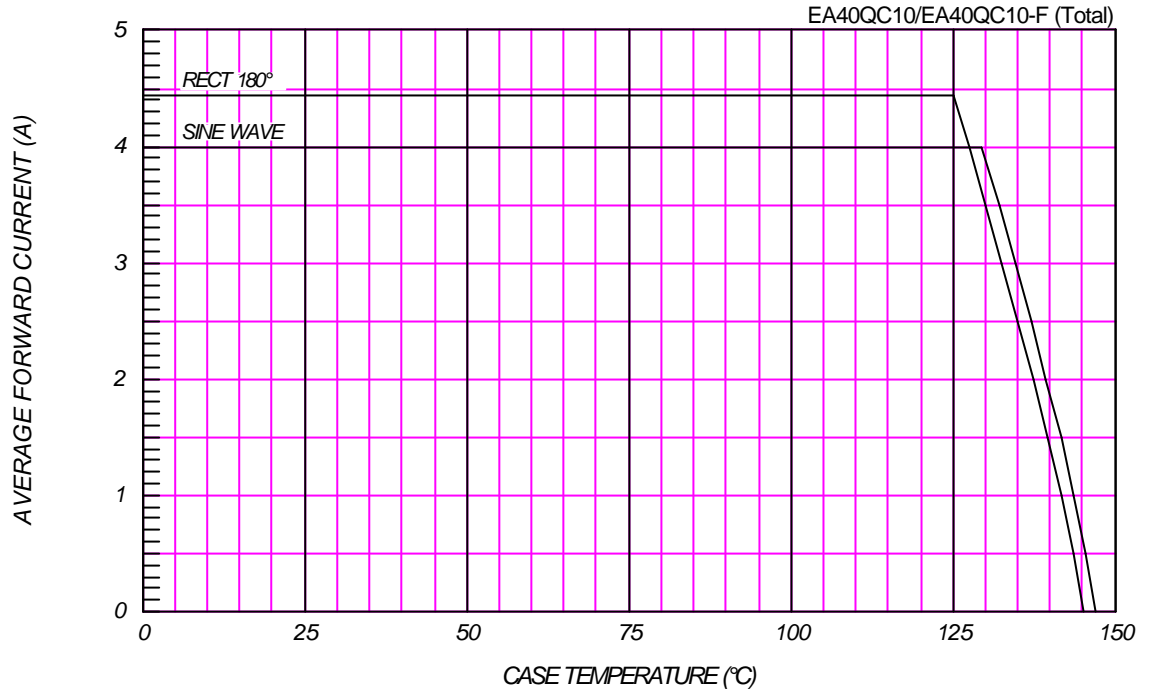
EA40QC10/EA40QC10-F (Total)





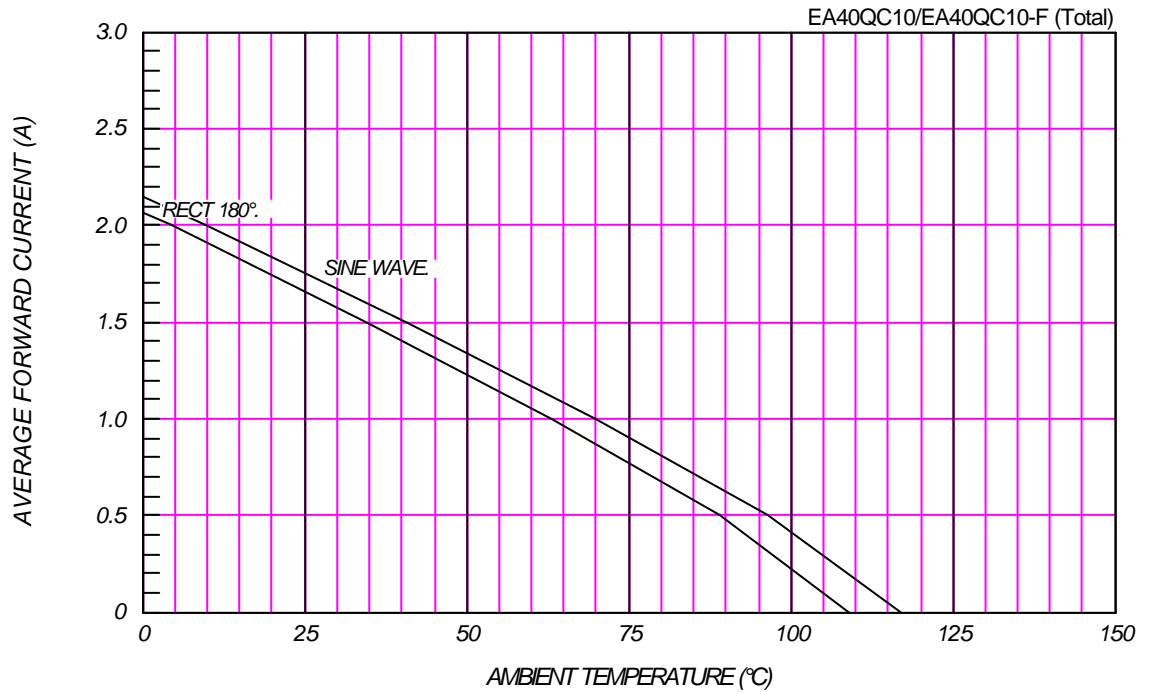
### AVERAGE FORWARD CURRENT VS. CASE TEMPERATURE

$V_{RM} = 100V$



### AVERAGE FORWARD CURRENT VS. AMBIENT TEMPERATURE

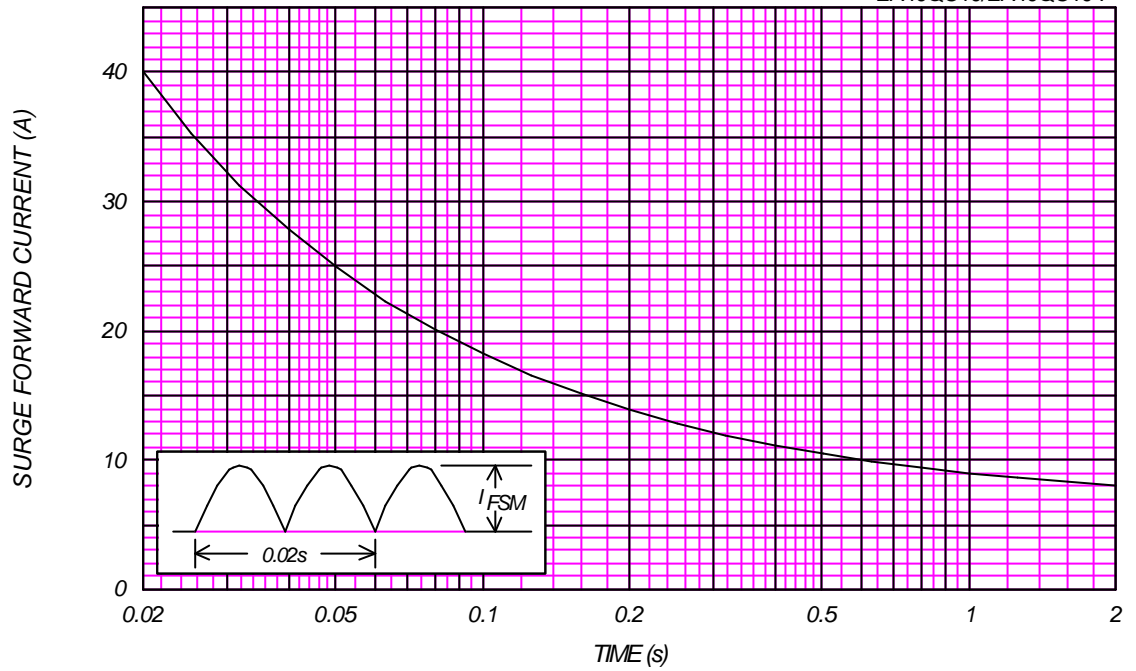
P.C. Board mounted (Print land=20x20mm)



### SURGE CURRENT RATINGS

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

EA40QC10/EA40QC10-F



### JUNCTION CAPACITANCE VS. REVERSE VOLTAGE

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

EA40QC10/EA40QC10-F (per Arm)

