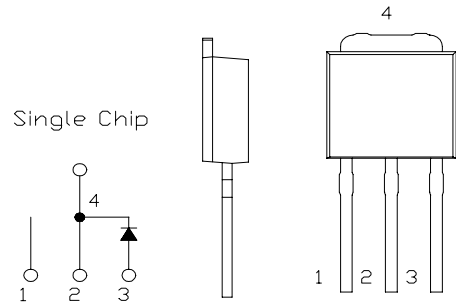


SBD Type : EA30QS03L

OUTLINE DRAWING

FEATURES

- * TO-251AA Case
- * Extremely Low Forward Voltage drop
- * Low Power Loss, High Efficiency
- * High Surge Capability



Maximum Ratings

Approx Net Weight:0.35g

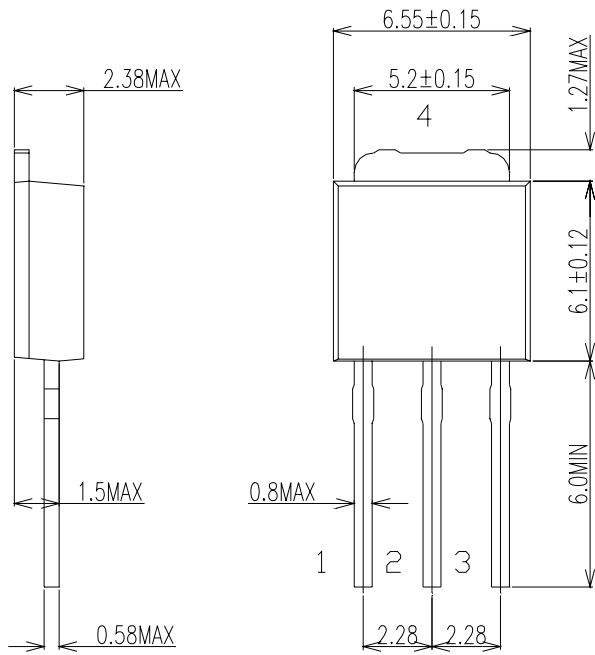
Rating	Symbol	EA30QS03L		Unit
Repetitive Peak Reverse Voltage	V_{RRM}	30		V
Average Rectified Output Current	I_O	1.7	$T_a=32^{\circ}\text{C}$ *1	50Hz Half Sine Wave Resistive Load
		3.0	$T_c=126^{\circ}\text{C}$	
RMS Forward Current	$I_{F(RMS)}$	4.71		A
Surge Forward Current	I_{FSM}	45	50Hz Half Sine 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

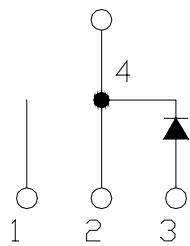
Characteristics		Symbol	Conditions	Min	Typ	Max	Unit
Peak Reverse Current		I_{RM}	$T_j=25^{\circ}\text{C}, V_{RM}=V_{RRM}$	-	-	3.0	mA
Peak Forward Voltage		V_{FM}	$T_j=25^{\circ}\text{C}, I_{FM}= 3 \text{ A}$	-	-	0.45	V
Thermal Resistance	Junction to Ambient	$R_{th(j-a)}$	P.C.Board mounted *1	-	-	80	$^{\circ}\text{C}/\text{W}$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

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

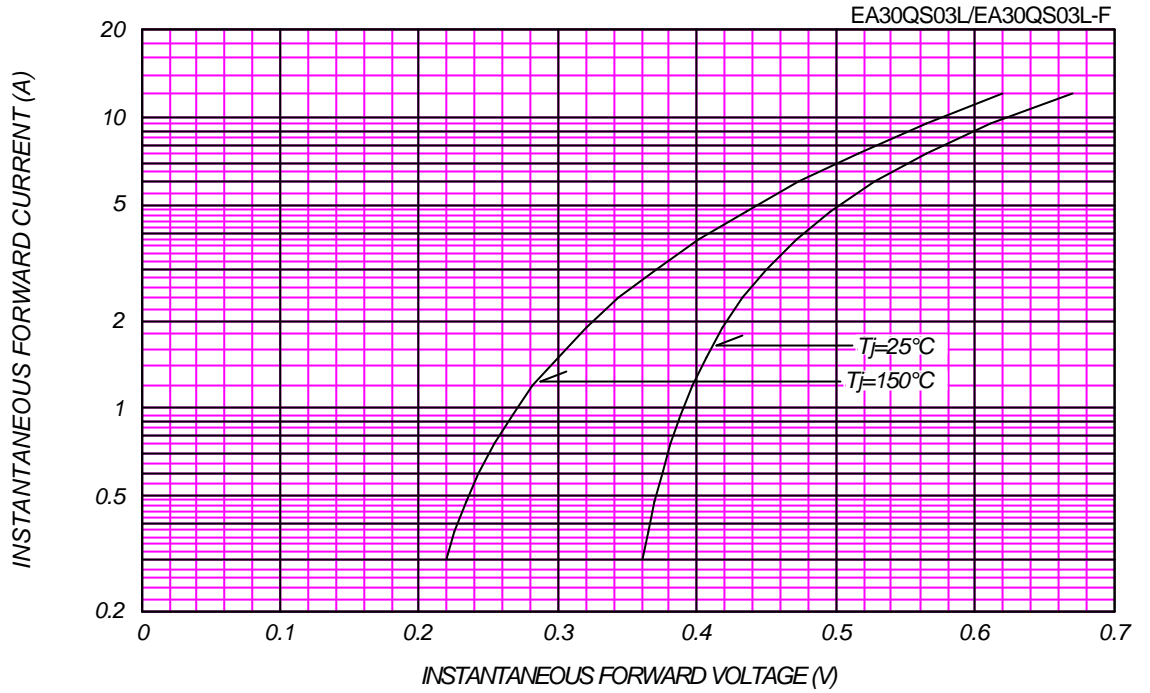
EA30QS03L OUTLINE DRAWING (Dimensions in mm)



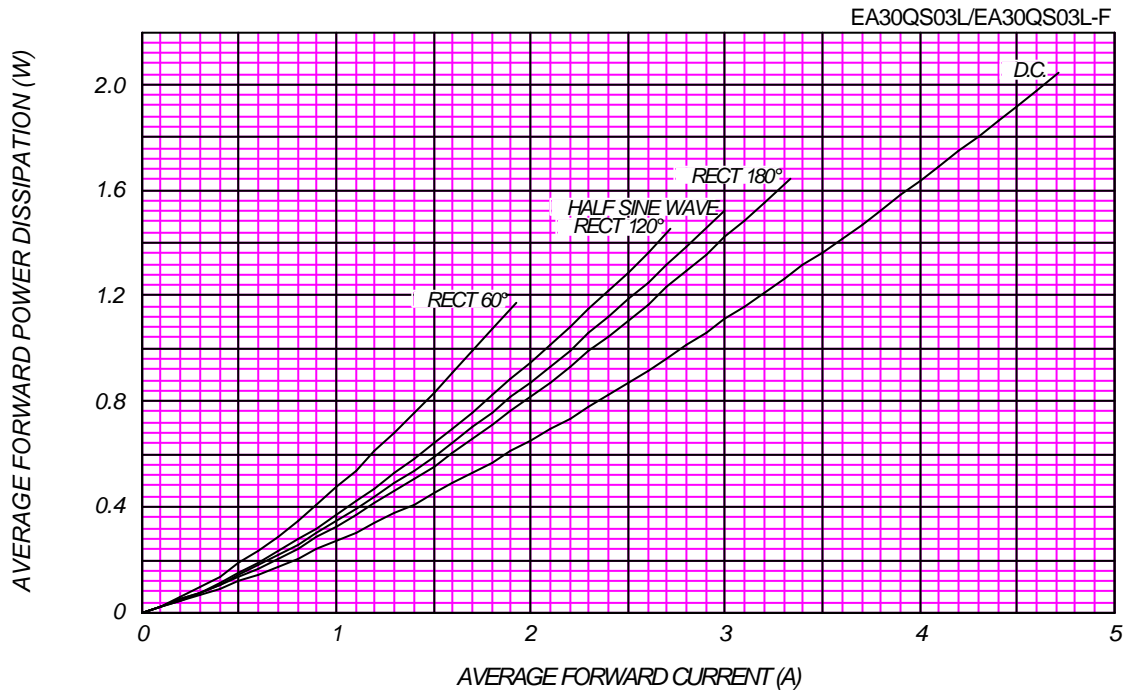
Single Chip



FORWARD CURRENT VS. VOLTAGE



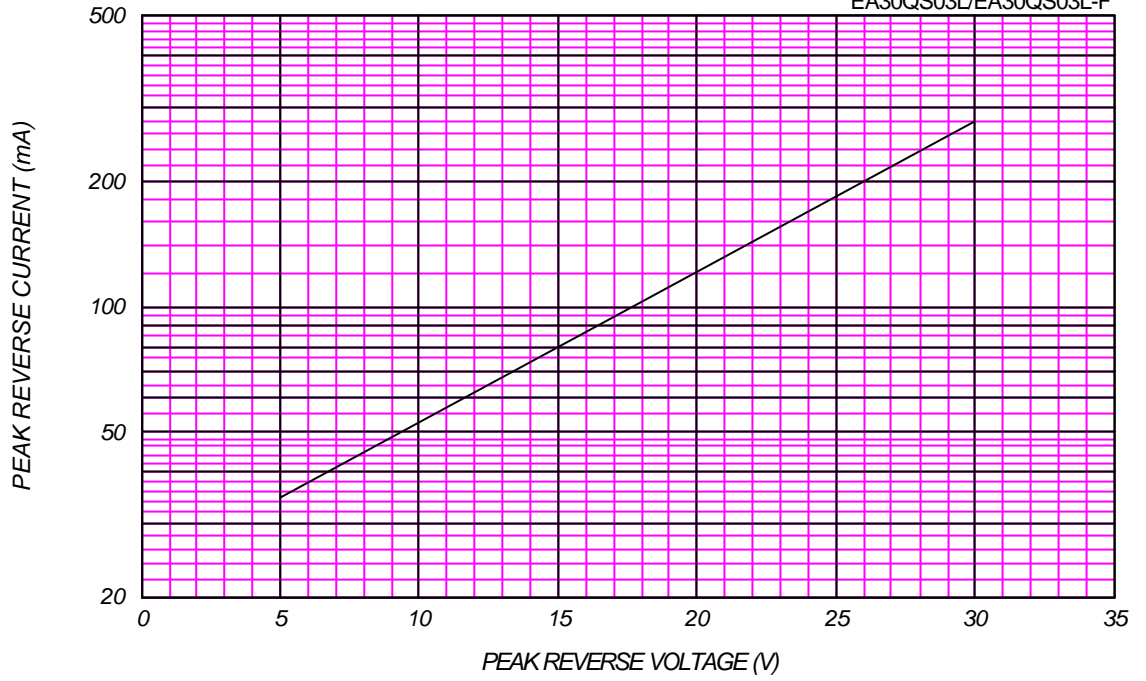
AVERAGE FORWARD POWER DISSIPATION



PEAK REVERSE CURRENT VS. PEAK REVERSE VOLTAGE

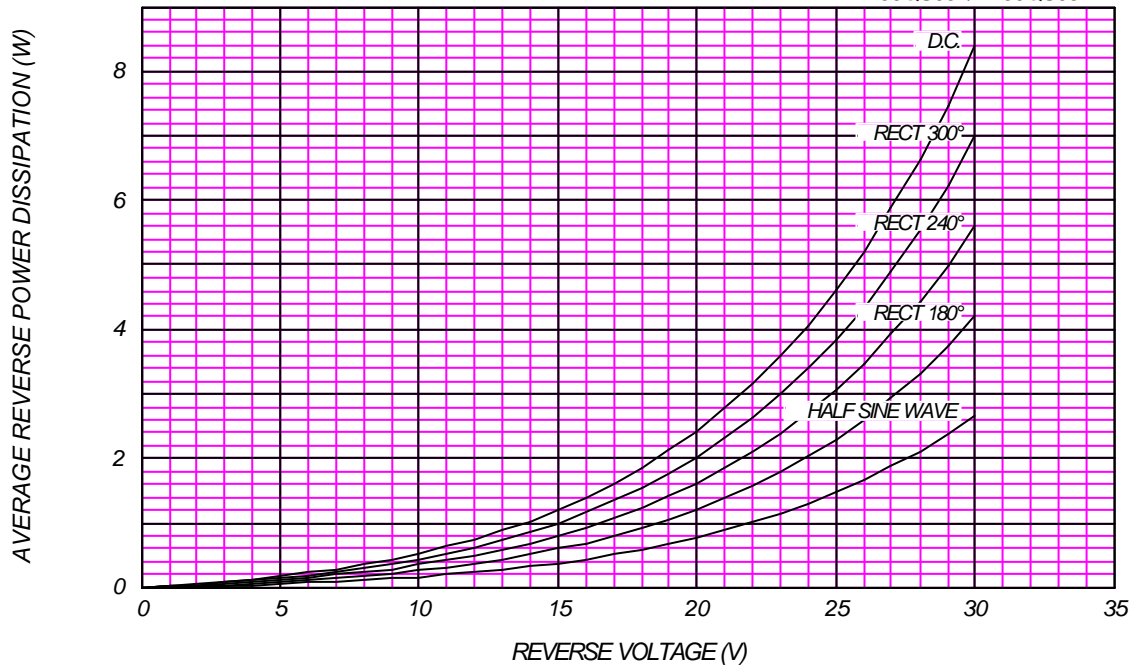
$T_j = 150\text{ }^\circ\text{C}$

EA30QS03L/EA30QS03L-F



AVERAGE REVERSE POWER DISSIPATION

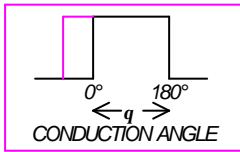
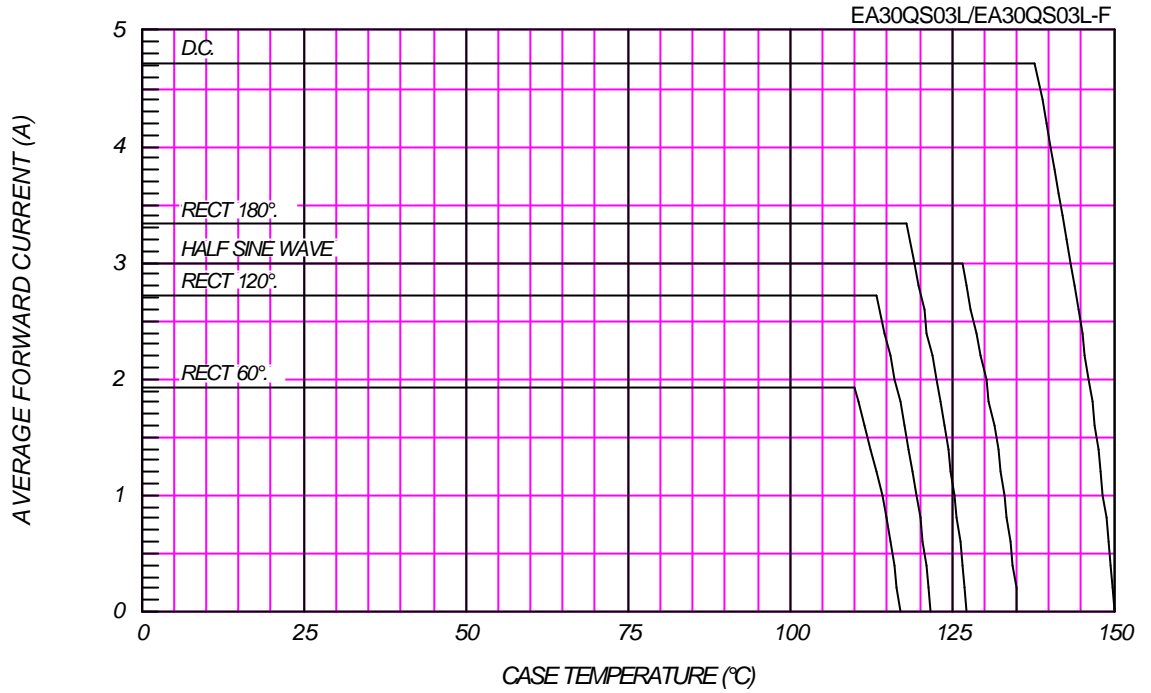
EA30QS03L/EA30QS03L-F





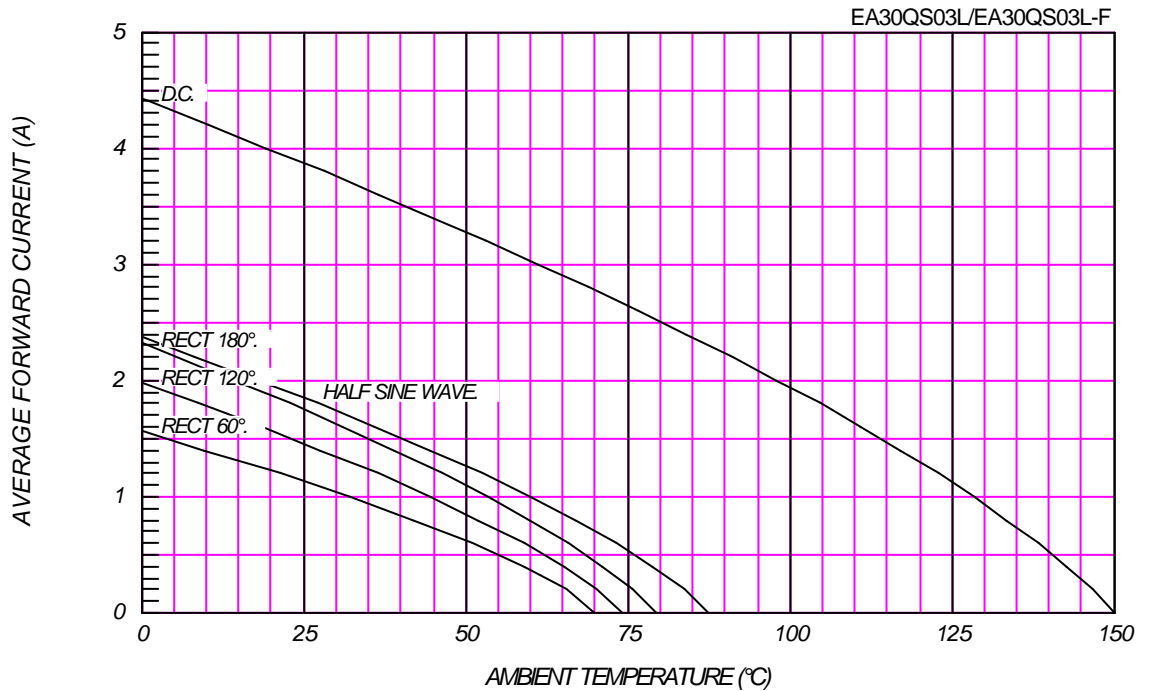
AVERAGE FORWARD CURRENT VS. CASE TEMPERATURE

$V_{RM}=30V$



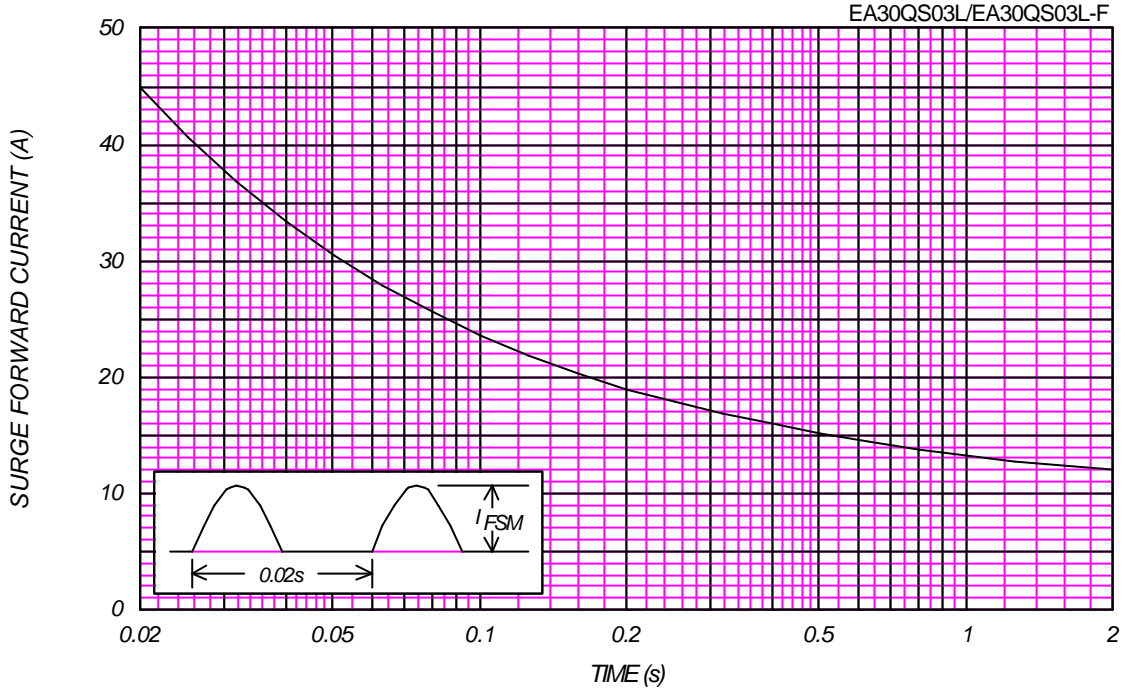
AVERAGE FORWARD CURRENT VS. AMBIENT TEMPERATURE

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

