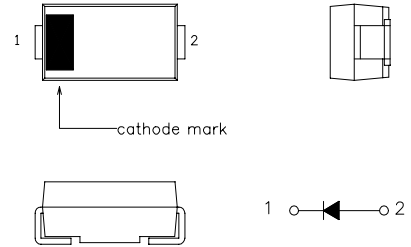


SBD Type : EC10QS03L

FEATURES

- * Miniature Size, Surface Mount Device
- * Extremely Low Forward Voltage Drop
- * Low Power Loss, High Efficiency
- * High Surge Capability
- * 30 Volts through 100Volts Types Available
- * Packaged in 12mm Tape and Reel
- * Not Rolling During Assembly

OUTLINE DRAWING



Maximum Ratings

Approx Net Weight: 0.06g

Rating	Symbol	EC10QS03L			Unit
Repetitive Peak Reverse Voltage	V_{RRM}	30			V
Average Rectified Output Current	I_O	1.0	$T_a=28\text{ }^\circ\text{C}$ *1	50Hz Half Sine Wave Resistive Load	A
		1.0	$T_a=58\text{ }^\circ\text{C}$ *2		
RMS Forward Current	$I_{F(RMS)}$	1.57			A
Surge Forward Current	I_{FSM}	20	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

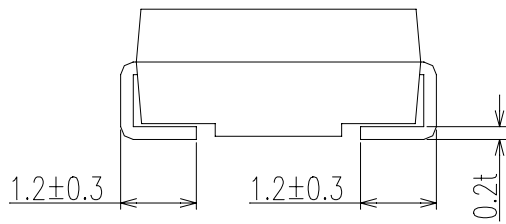
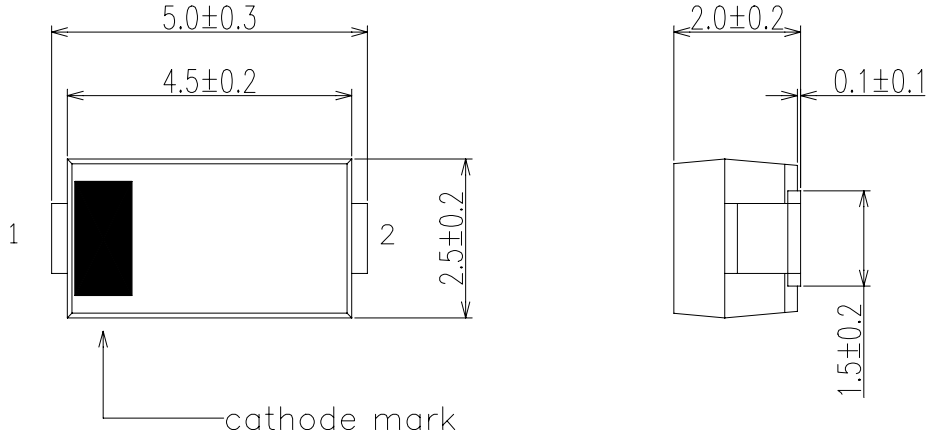
Characteristics	Symbol	Conditions	Min.	Typ.	Max.	Unit	
Peak Reverse Current	I_{RM}	$T_j=25\text{ }^\circ\text{C}$, $V_{RM}=V_{RRM}$	-	-	1.0	mA	
Peak Forward Voltage	V_{FM}	$T_j=25\text{ }^\circ\text{C}$, $I_{FM}=1.0\text{A}$	-	-	0.45	V	
Thermal Resistance	$R_{th(j-a)}$	Junction to Ambient	*1	-	-	157	$^\circ\text{C}/\text{W}$
			*2	-	-	108	

*1 Glass Epoxy Substrate Mounted

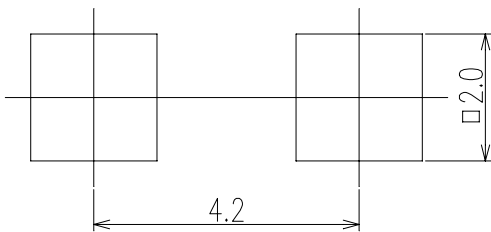
*2 Alumina Substrate Mounted

Soldering Lands=2x2mm, Both Sides

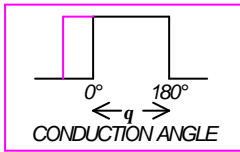
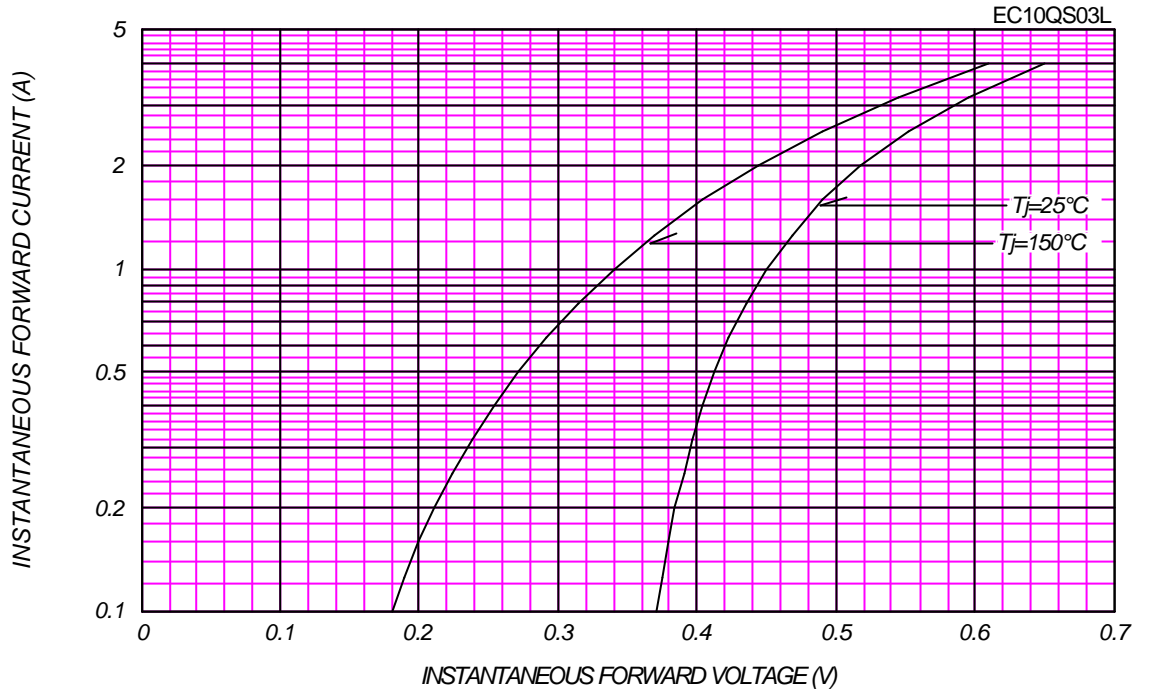
EC10QS_ OUTLINE DRAWING (Dimensions in mm)



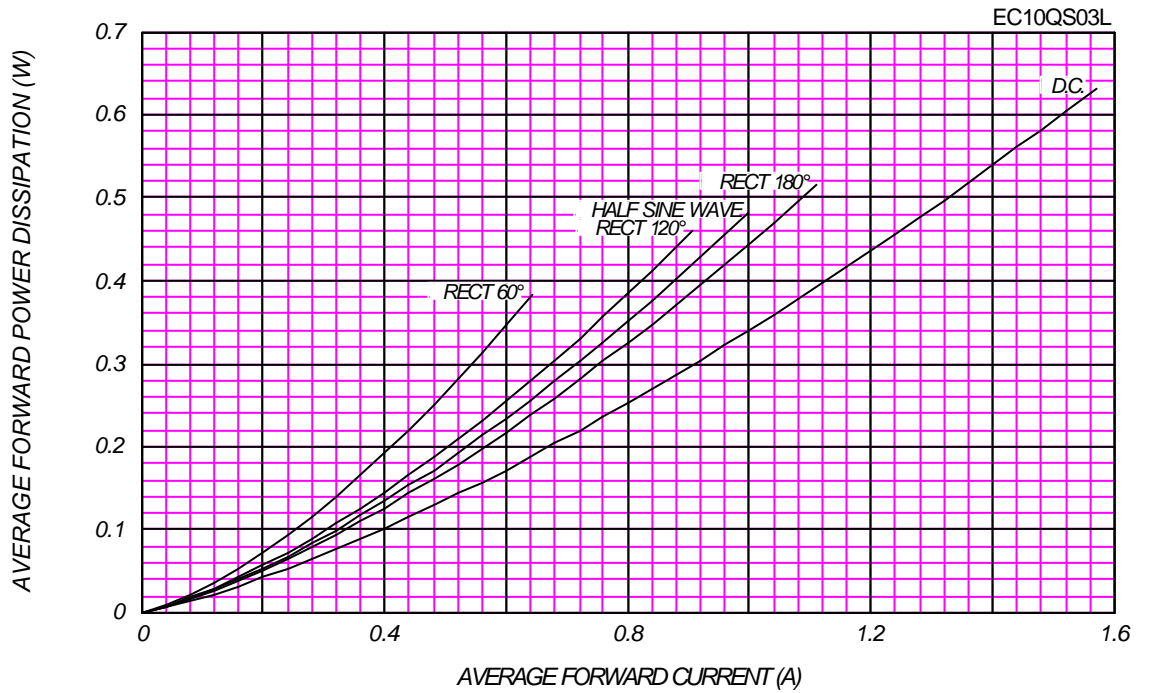
SOLDERING PAD



FORWARD CURRENT VS. VOLTAGE



AVERAGE FORWARD POWER DISSIPATION



PEAK REVERSE CURRENT VS. PEAK REVERSE VOLTAGE

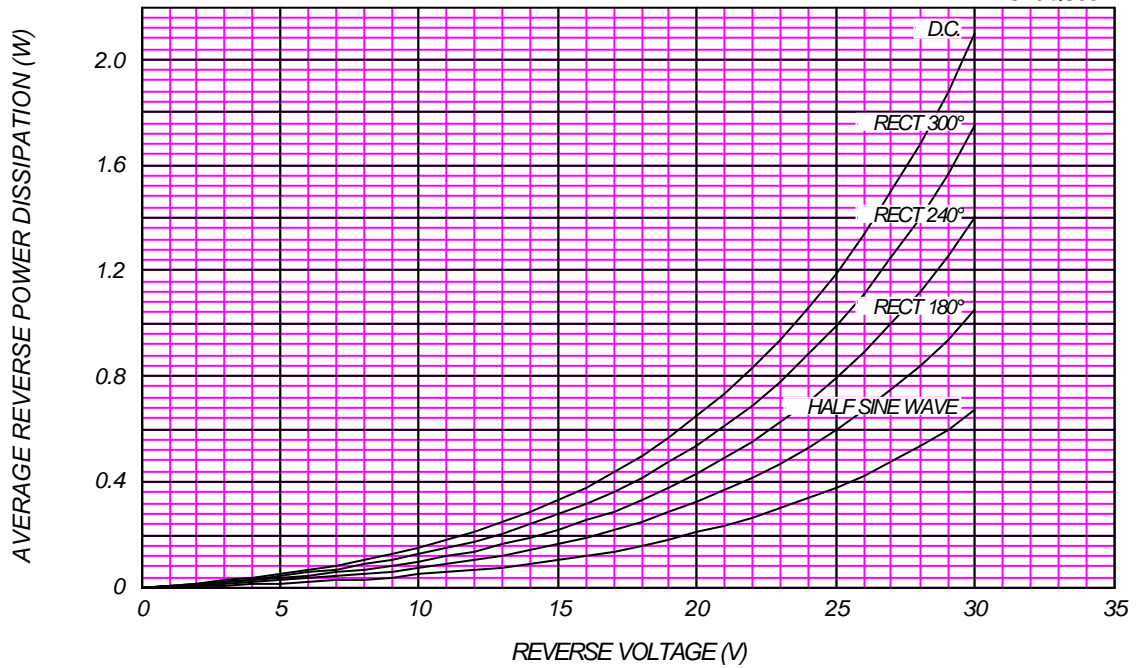
T_j = 150 °C

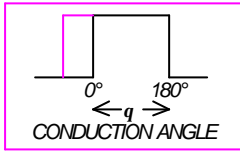
EC10QS03L



AVERAGE REVERSE POWER DISSIPATION

EC10QS03L

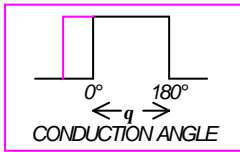
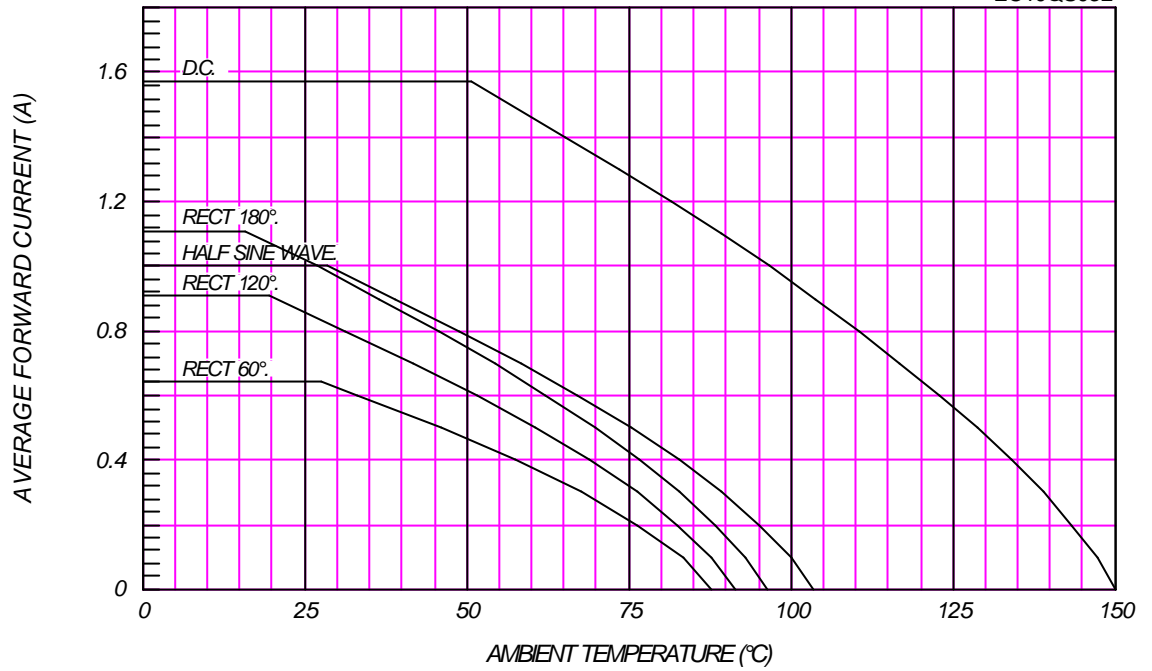




AVERAGE FORWARD CURRENT VS. AMBIENT TEMPERATURE

Glass-Epoxy Substrate mounted(Land=2x2mm), $V_{RM}=30V$

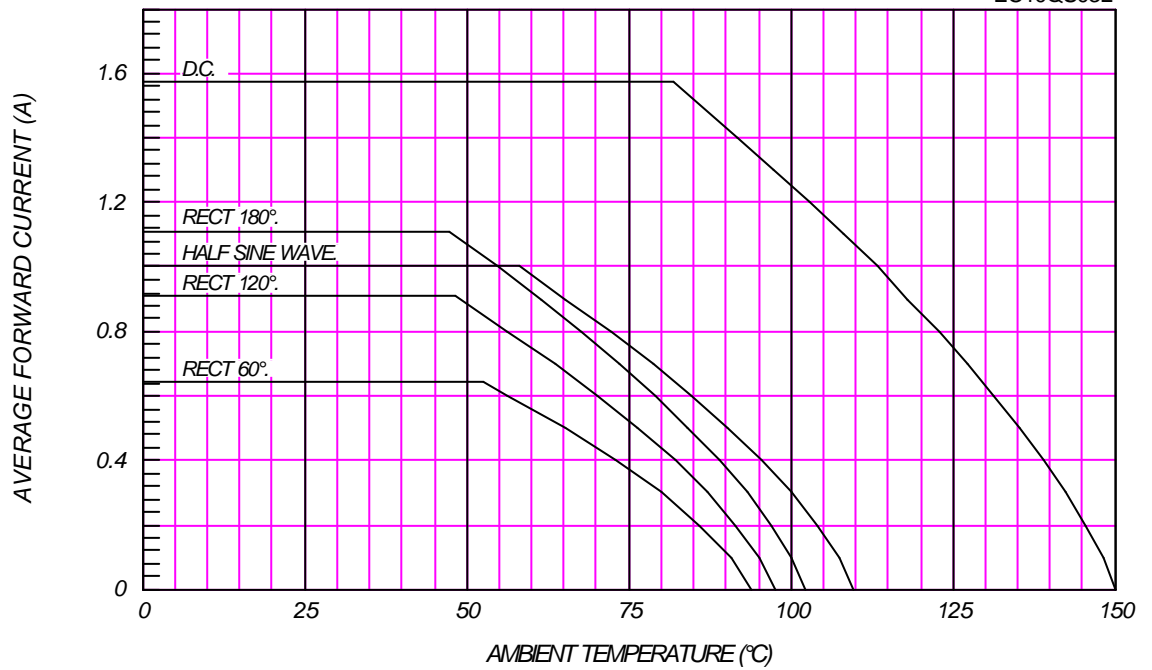
EC10QS03L



AVERAGE FORWARD CURRENT VS. AMBIENT TEMPERATURE

Alumina Substrate mounted(Land=2x2mm), $V_{RM}=30V$

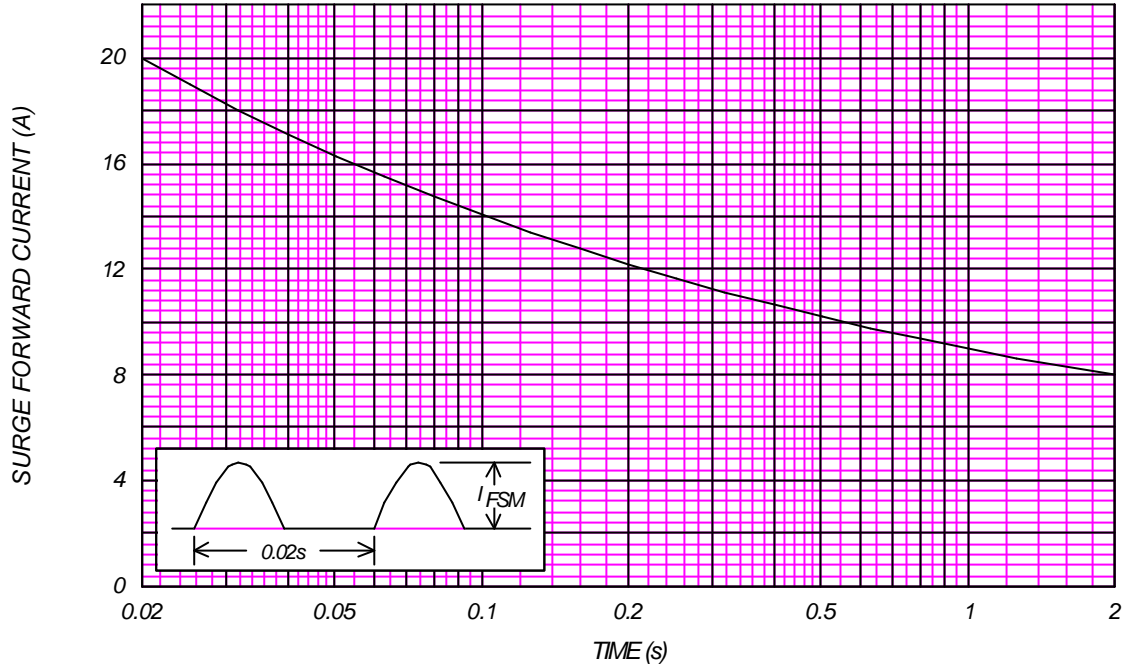
EC10QS03L



SURGE CURRENT RATINGS

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

EC10QS03L



JUNCTION CAPACITANCE VS. REVERSE VOLTAGE

$T_j=25^\circ\text{C}$, $V_m=20\text{mV}_{\text{RMS}}$, $f=100\text{kHz}$, Typical Value

EC10QS03L

