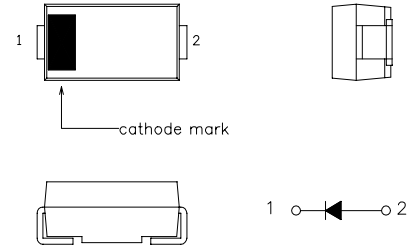


SBD Type : EC10QS09

FEATURES

- * Miniature Size, Surface Mount Device
- * 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	EC10QS09		Unit
Repetitive Peak Reverse Voltage	V_{RRM}	90		V
Average Rectified Output Current	I_O	0.92	$T_a=25\text{ }^\circ\text{C}$ *1	50Hz Half Sine Wave Resistive Load
		1.0	$T_a=55\text{ }^\circ\text{C}$ *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

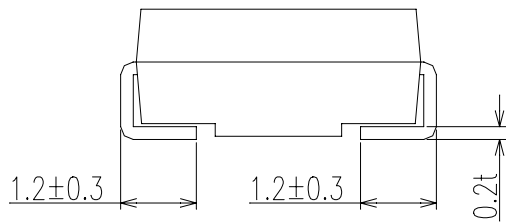
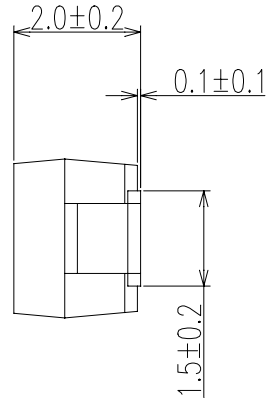
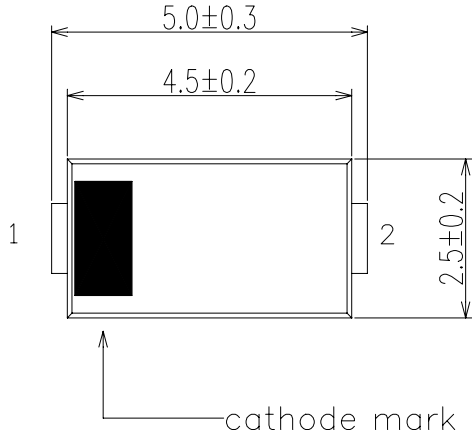
Characteristics	Symbol	Conditions	Min.	Typ.	Max.	Unit	
Peak Reverse Current	I_{RM}	$T_j= 25^\circ\text{C}$, $V_{RM}= V_{RRM}$	-	-	0.5	mA	
Peak Forward Voltage	V_{FM}	$T_j= 25^\circ\text{C}$, $I_{FM}= 1.0\text{A}$	-	-	0.85	V	
Thermal Resistance	$R_{th(j-a)}$	Junction to Ambient	*1	-	-	157	$^\circ\text{C}/\text{W}$
			*2	-	-	108	

*1 Glass Epoxy Substrate Mounted

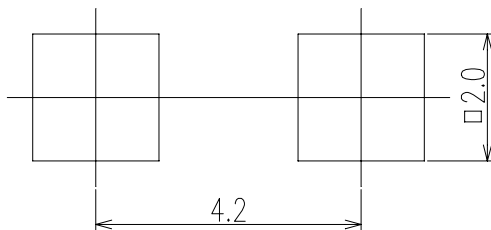
*2 Alumina Substrate Mounted

Soldering Lands=2x2mm, Both Sides

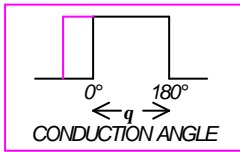
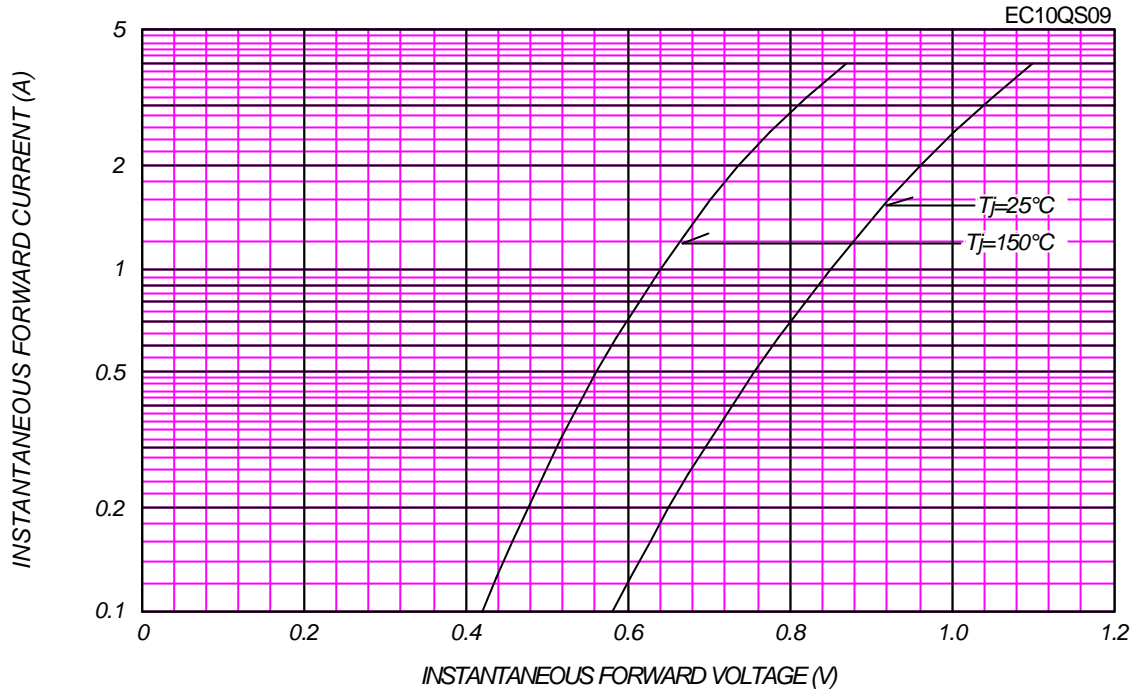
EC10QS_ OUTLINE DRAWING (Dimensions in mm)



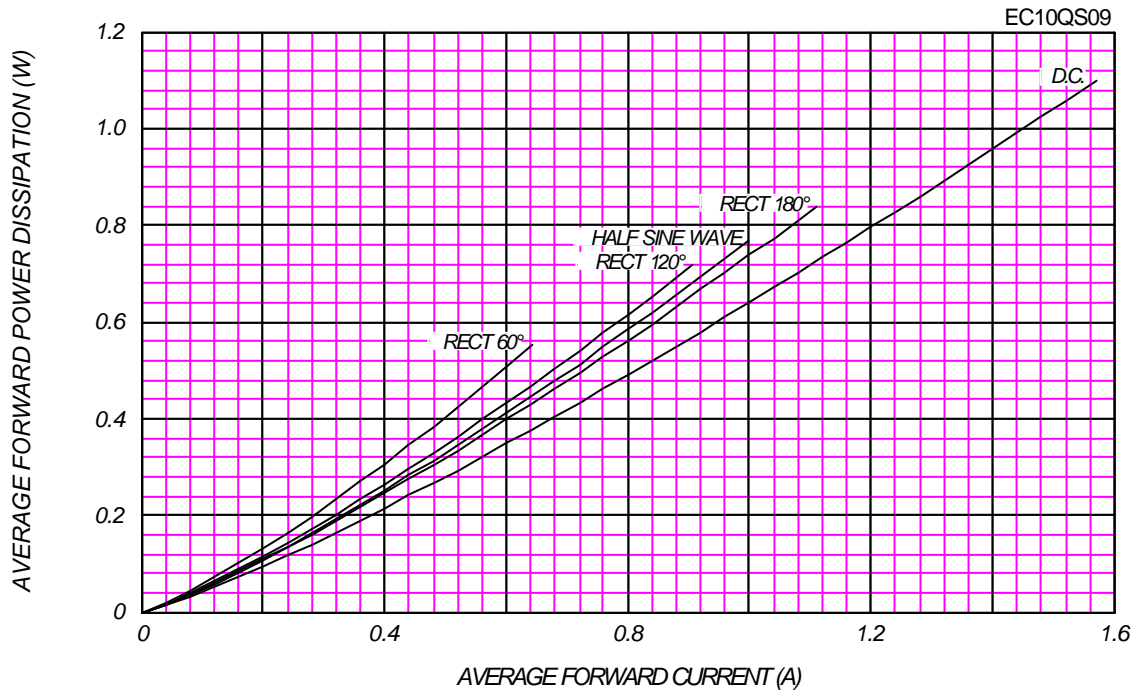
SOLDERING PAD



FORWARD CURRENT VS. VOLTAGE



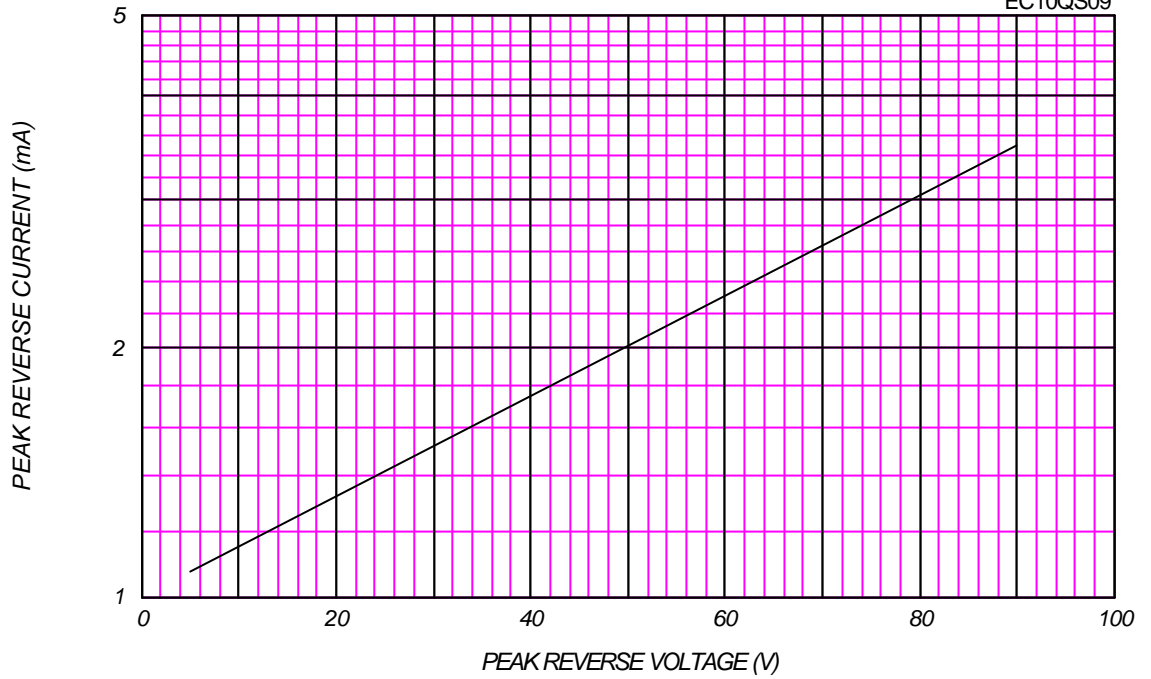
AVERAGE FORWARD POWER DISSIPATION



PEAK REVERSE CURRENT VS. PEAK REVERSE VOLTAGE

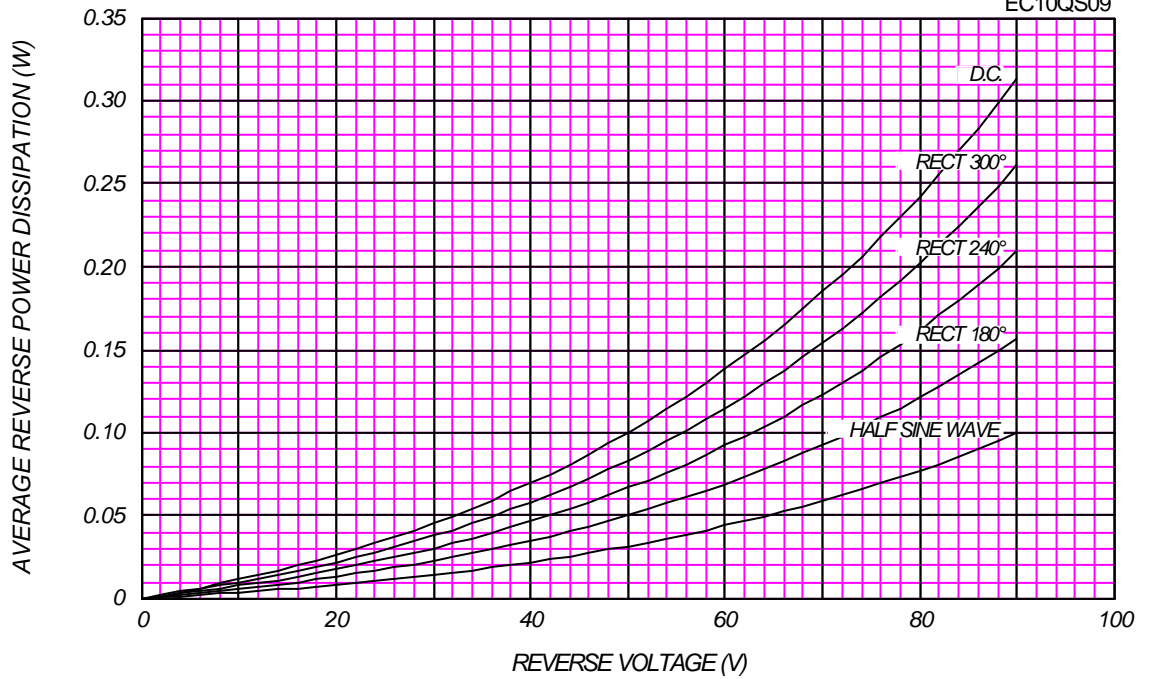
$T_j = 150\text{ }^\circ\text{C}$

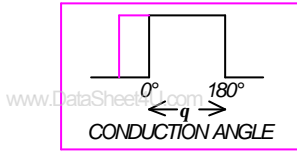
EC10QS09



AVERAGE REVERSE POWER DISSIPATION

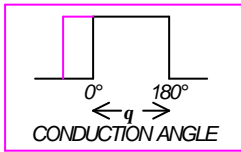
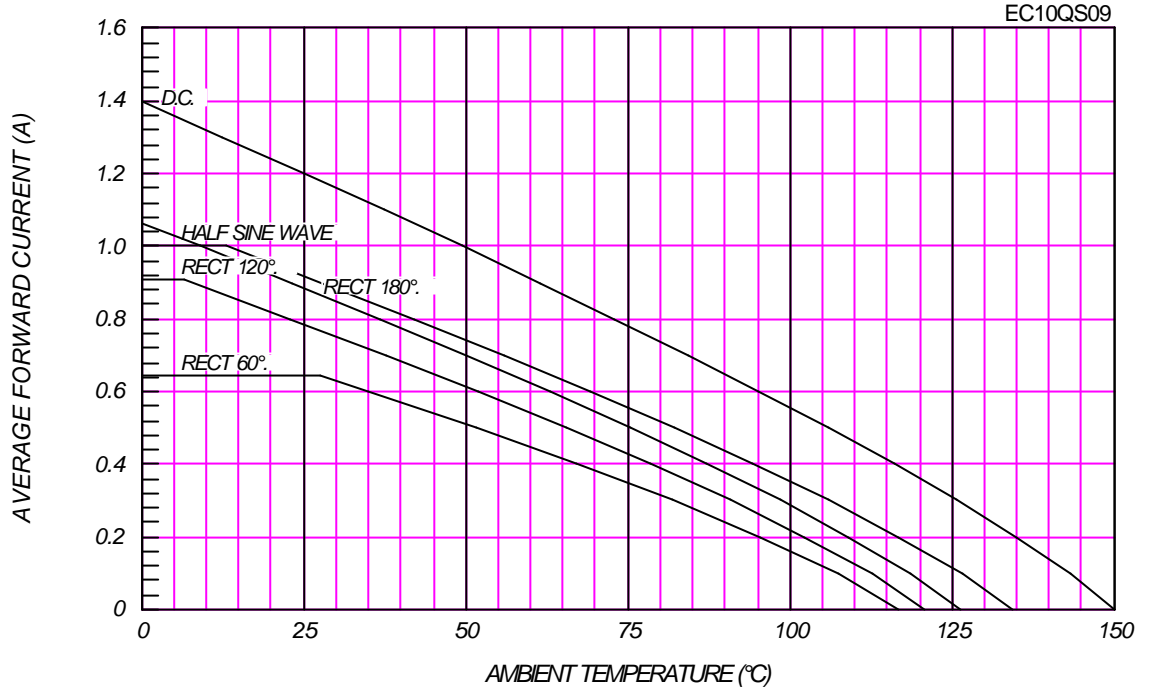
EC10QS09





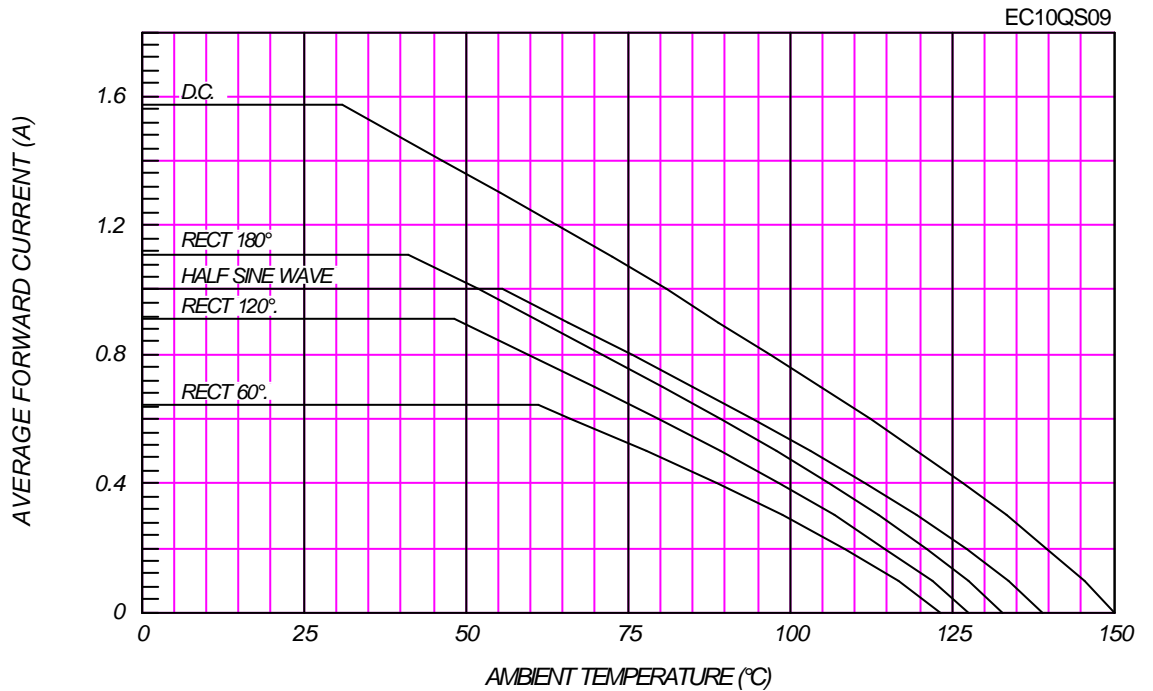
AVERAGE FORWARD CURRENT VS. AMBIENT TEMPERATURE

Glass-Epoxy Substrate Mounted(Land=2x2mm), $V_{RM}=90V$



AVERAGE FORWARD CURRENT VS. AMBIENT TEMPERATURE

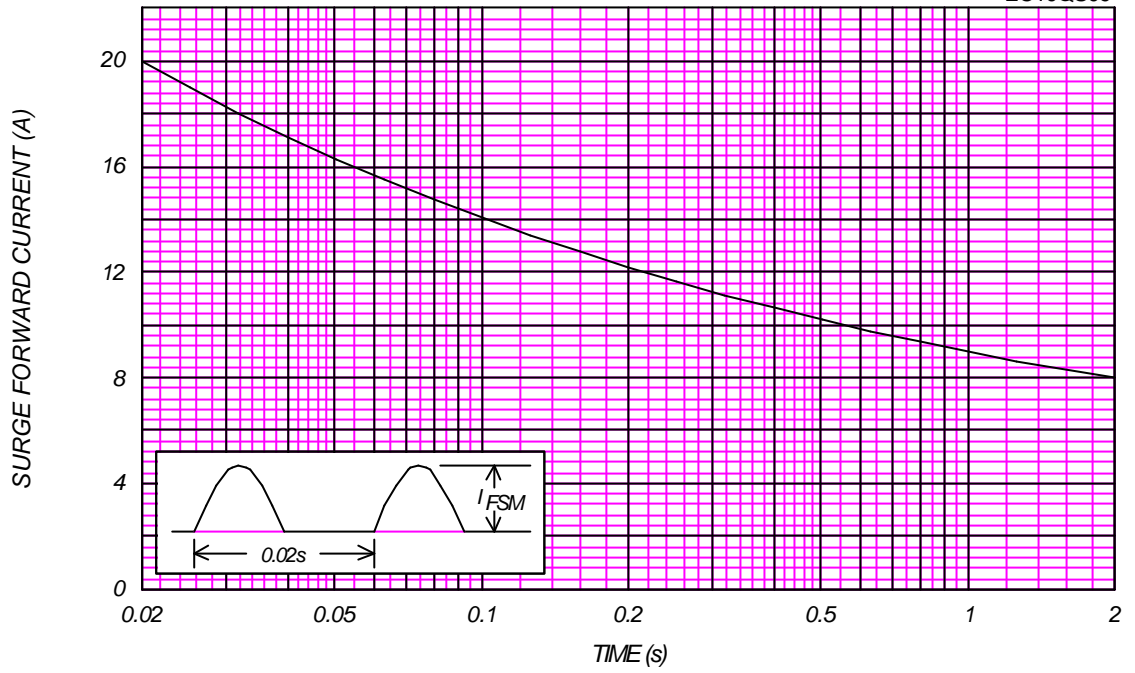
Alumina Substrate Mounted(Land=2x2mm), $V_{RM}=90V$



SURGE CURRENT RATINGS

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

EC10QS09



JUNCTION CAPACITANCE VS. REVERSE VOLTAGE

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

EC10QS09

