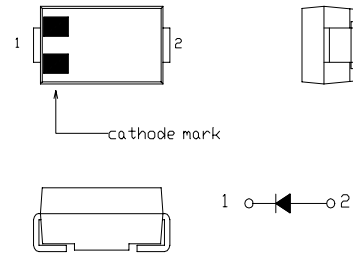


SBD Type : EC21QS09

FEATURES

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

OUTLINE DRAWING



Maximum Ratings

Approx Net Weight: 0.06g

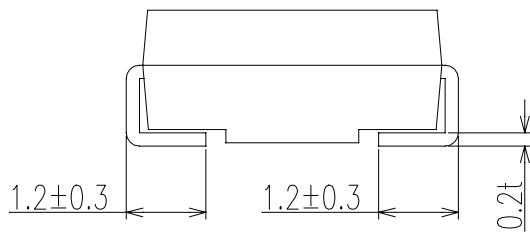
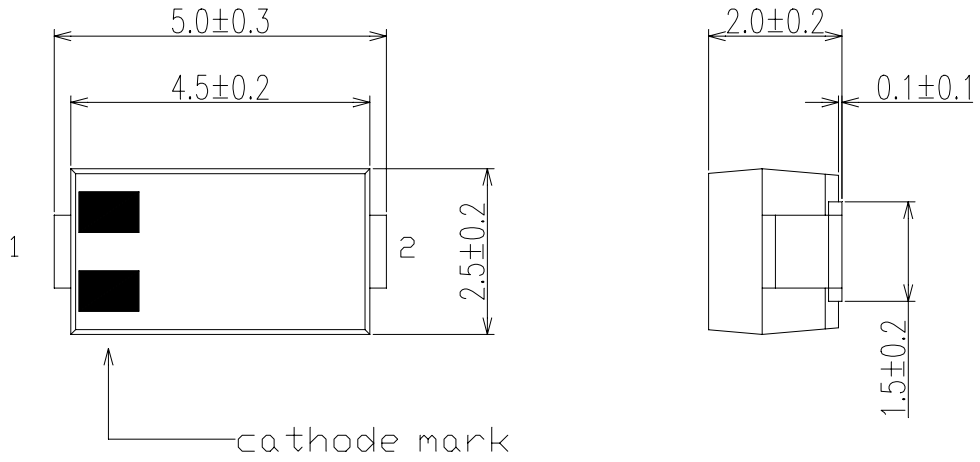
Rating	Symbol	EC21QS09		Unit
Repetitive Peak Reverse Voltage	V_{RRM}	90		V
Average Rectified Output Current	I_o	1.3	Ta=29 °C *1	50Hz Half Sine Wave Resistive Load
		2.0	Tl=107 °C	
RMS Forward Current	$I_{F(RMS)}$	3.14		A
Surge Forward Current	I_{FSM}	50	50Hz Half Sine Wave, 1cycle Non-repetitive	A
Operating Junction Temperature Range	T_{jw}	-40 to +150		°C
Storage Temperature Range	T_{stg}	-40 to +150		°C

Electrical • Thermal Characteristics

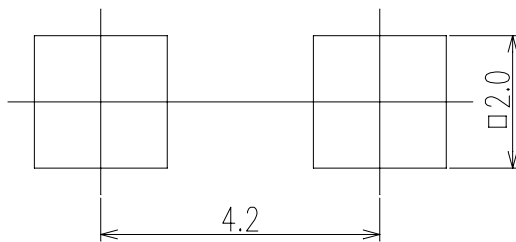
Characteristics		Symbol	Conditions	Min.	Typ.	Max.	Unit
Peak Reverse Current		I_{RM}	Tj= 25°C, V _{RM} = V _{RRM}	-	-	1	mA
Peak Forward Voltage		V_{FM}	Tj= 25°C, I _{FM} = 2.0A	-	-	0.85	V
Thermal Resistance	Junction to Ambient	R _{th(j-a)}	Alumina Substrate Mounted *1	-	-	108	°C/W
	Junction to Lead	R _{th(j-l)}	-	-	-	23	

*1 Alumina Substrate Mounted (Soldering Lands=2x2mm, Both Sides)
(Tl: Lead Temperature)

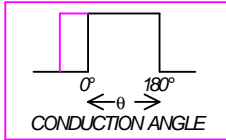
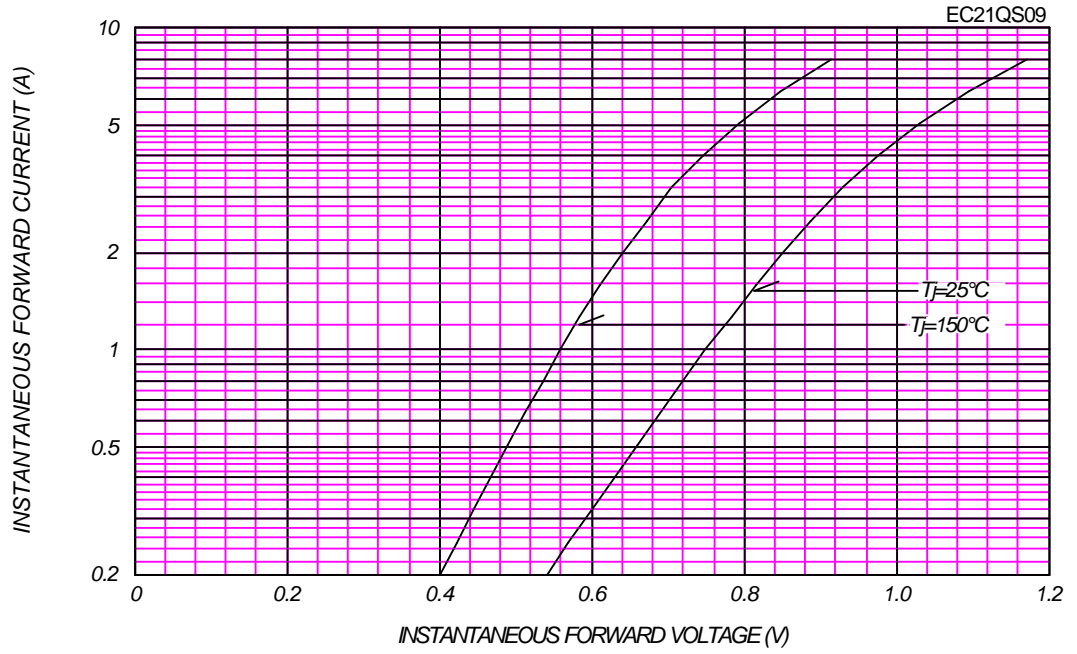
EC21QS_ OUTLINE DRAWING (Dimensions in mm)



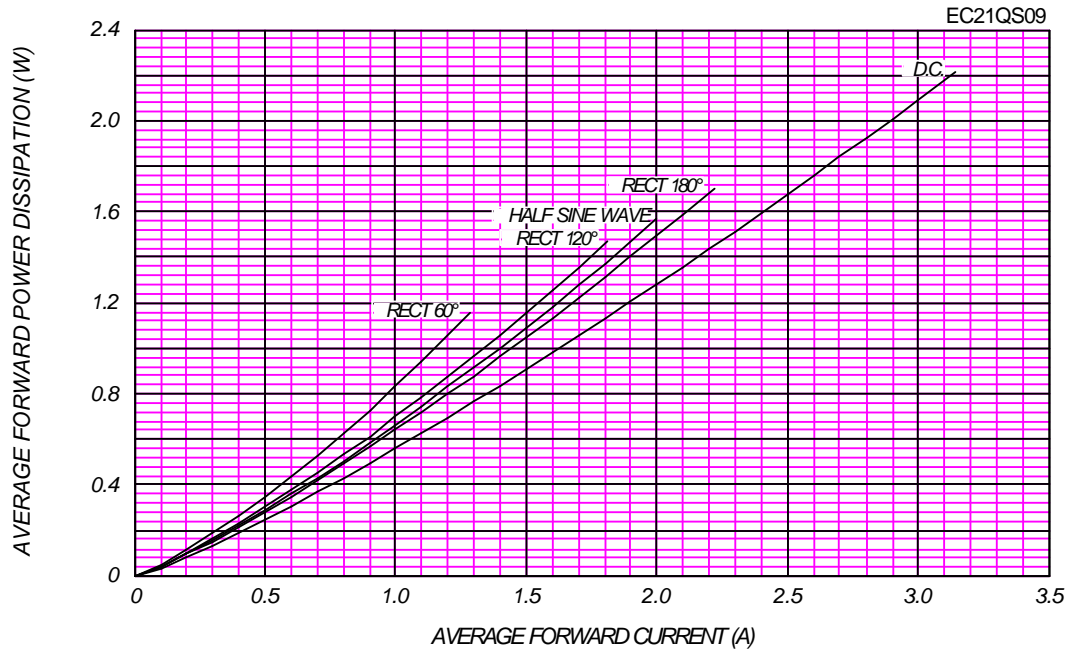
soldering pad



FORWARD CURRENT VS. VOLTAGE



AVERAGE FORWARD POWER DISSIPATION



PEAK REVERSE CURRENT VS. PEAK REVERSE VOLTAGE

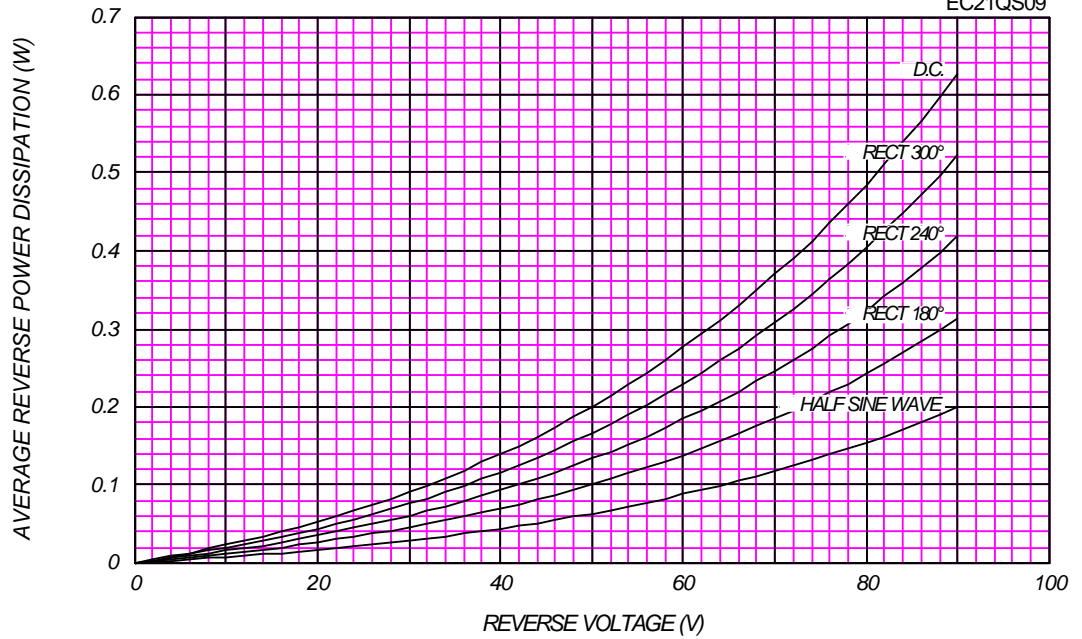
$T_j = 150^\circ\text{C}$

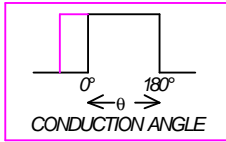
EC21QS09



AVERAGE REVERSE POWER DISSIPATION

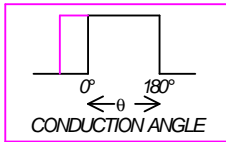
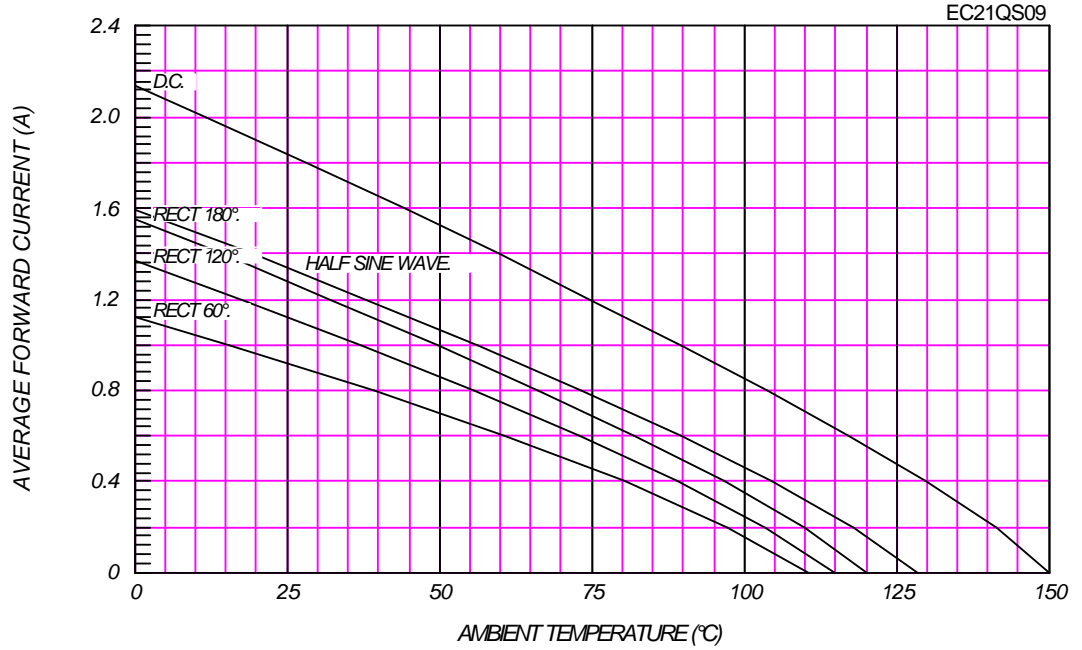
EC21QS09





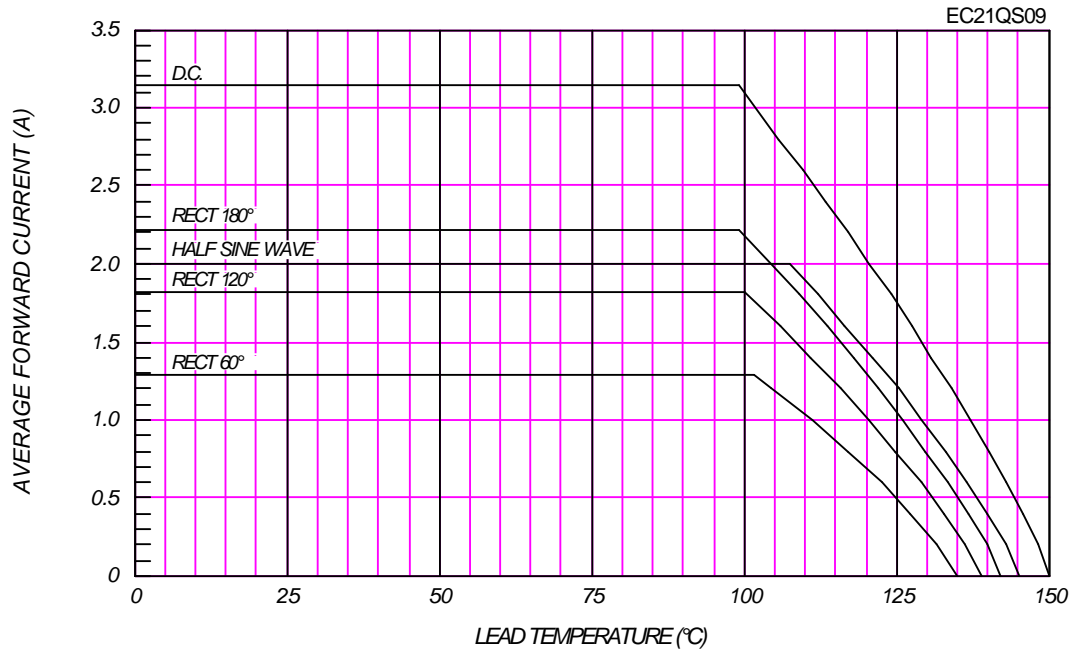
AVERAGE FORWARD CURRENT VS. AMBIENT TEMPERATURE

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



AVERAGE FORWARD CURRENT VS. LEAD TEMPERATURE

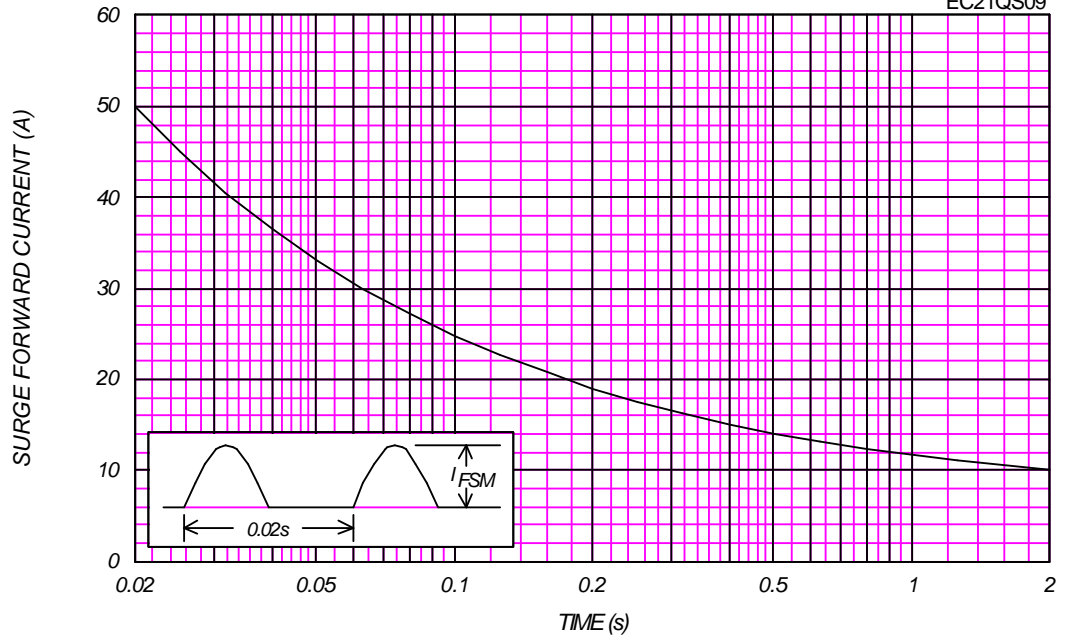
$V_{RM}=90V$



SURGE CURRENT RATINGS

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

EC21QS09



JUNCTION CAPACITANCE VS. REVERSE VOLTAGE

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

EC21QS09

