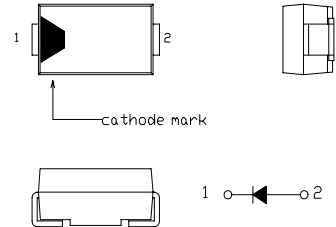


SBD Type : EC31QS06

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	EC31QS06			Unit
Repetitive Peak Reverse Voltage	V _{RRM}	60			V
Average Rectified Output Current	I _O	1.0	Ta=36 °C *1	50Hz Half Sine Wave Resistive Load	A
		3.0	Tl=64 °C Tl:Lead Temperature		
RMS Forward Current	I _{F(RMS)}	4.71			A
Surge Forward Current	I _{FSM}	50	50Hz Half Sine Wave,1cycle Non-repetitive		A
Operating JunctionTemperature Range	T _{jw}	-40 to +150			°C
Storage Temperature Range	T _{stg}	-40 to +150			°C

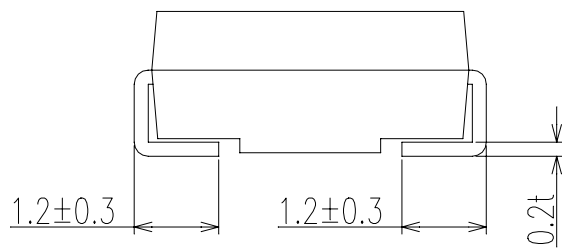
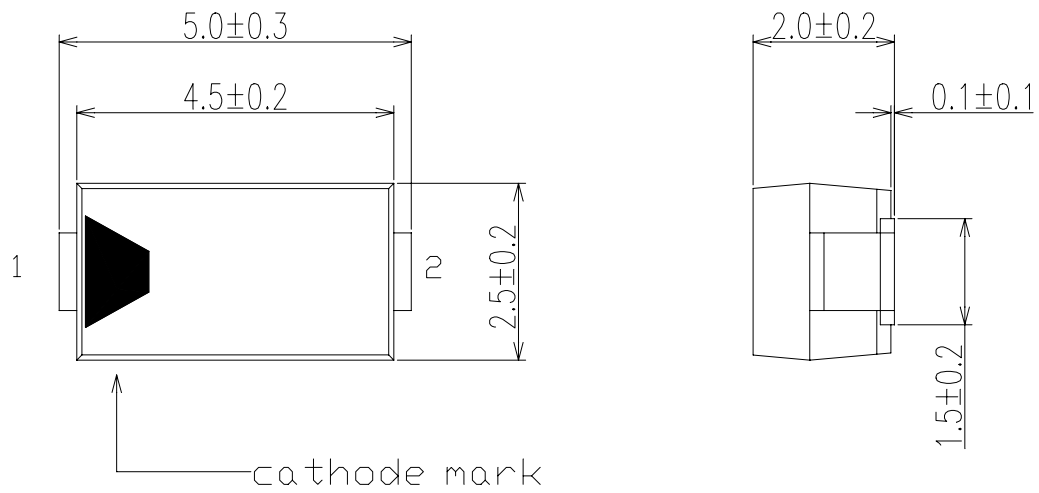
Electrical • Thermal Characteristics

Characteristics		Symbol	Conditions	Min.	Typ.	Max.	Unit
Peak Reverse Current		I_{RM}	$T_j = 25^\circ\text{C}$, $V_{RM} = V_{RRM}$	-	-	3	mA
Peak Forward Voltage		V_{FM}	$T_j = 25^\circ\text{C}$, $I_{FM} = 3.0\text{A}$	-	-	0.61	V
Thermal Resistance	Junction to Ambient	$R_{th(j-a)}$	*1	-	-	108	$^\circ\text{C}/\text{W}$
	Junction to Lead	$R_{th(j-l)}$	-	-	-	23	

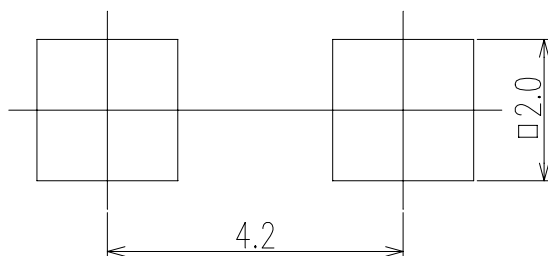
*1 Alumina Substrate Mounted

Soldering Lands = 2x2mm, Both Sides

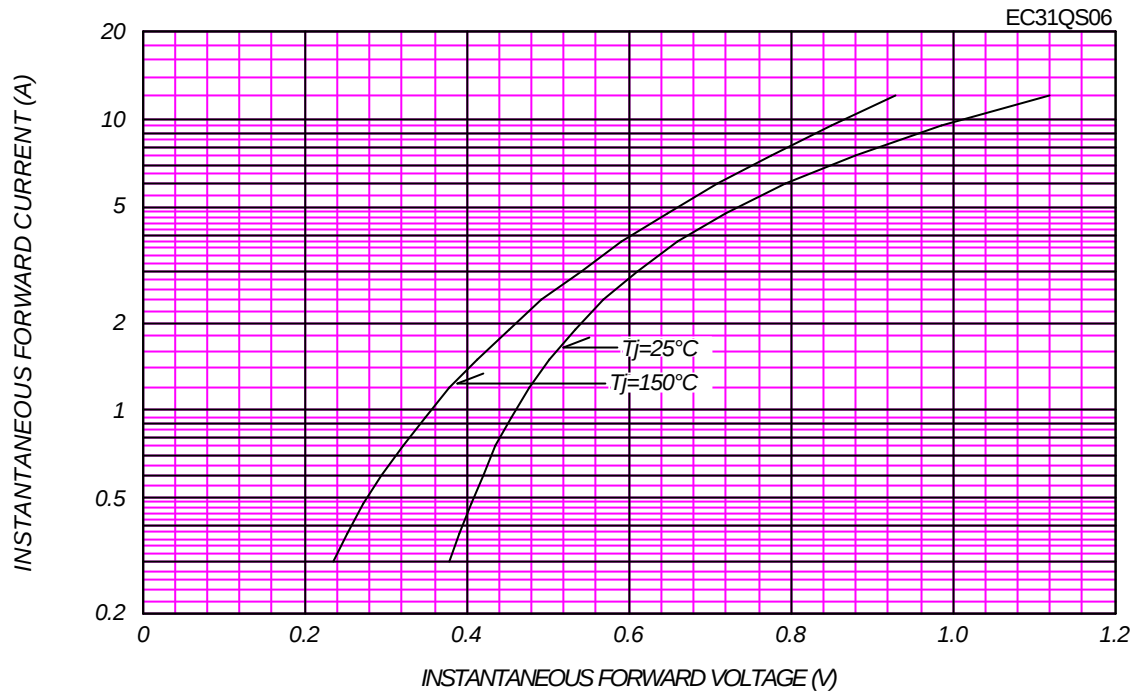
EC31QS_ OUTLINE DRAWING (Dimensions in mm)



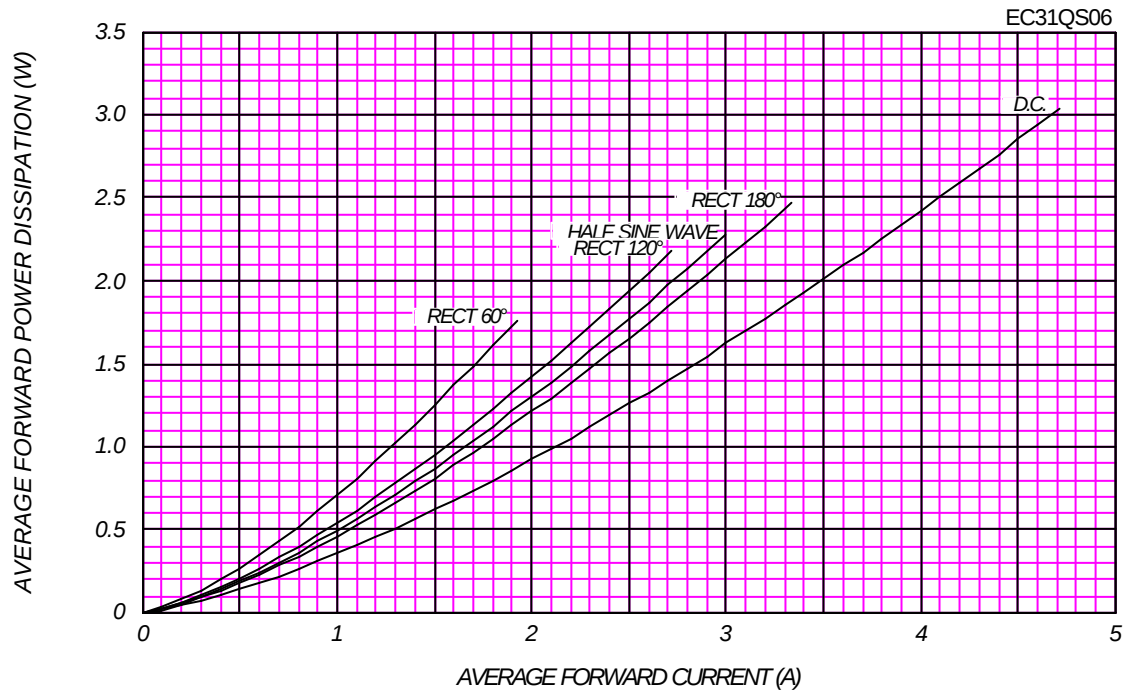
SOLDERING PAD



FORWARD CURRENT VS. VOLTAGE



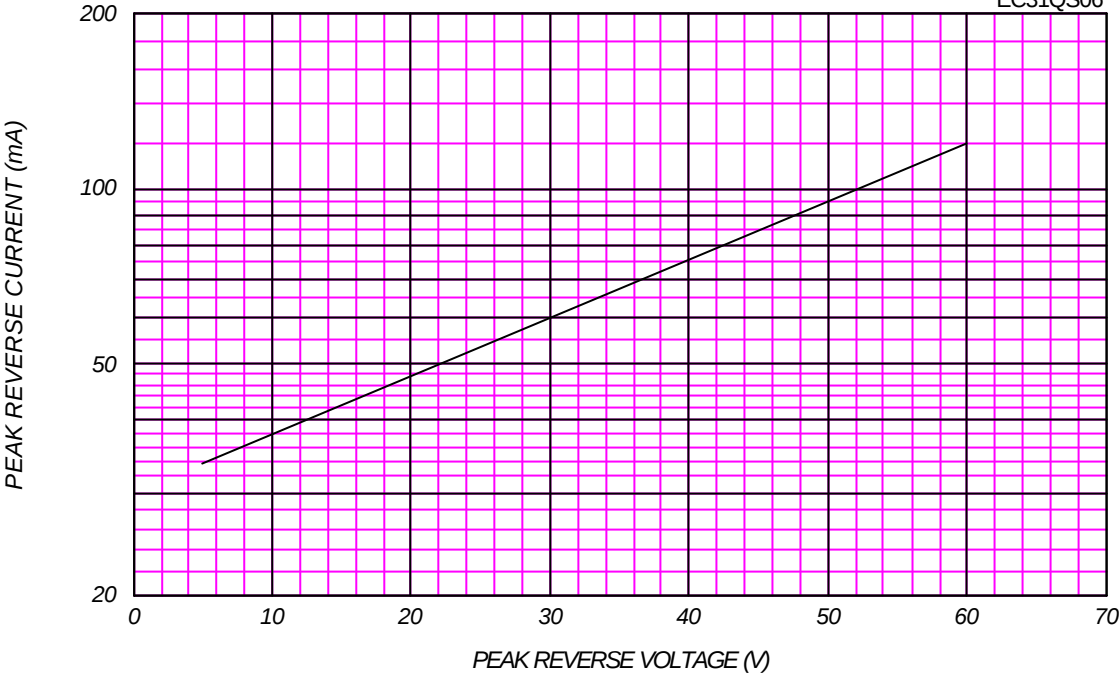
AVERAGE FORWARD POWER DISSIPATION



PEAK REVERSE CURRENT VS. PEAK REVERSE VOLTAGE

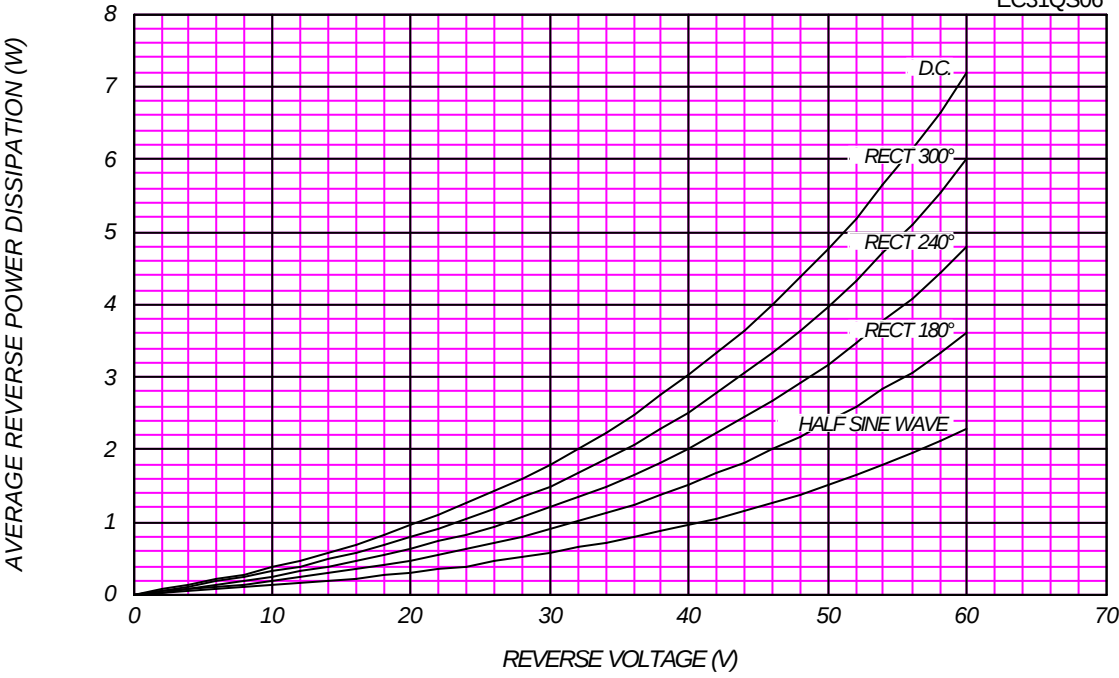
T_j = 150 °C

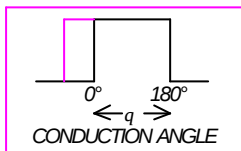
EC31QS06



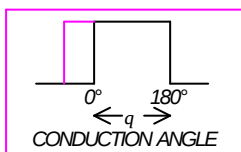
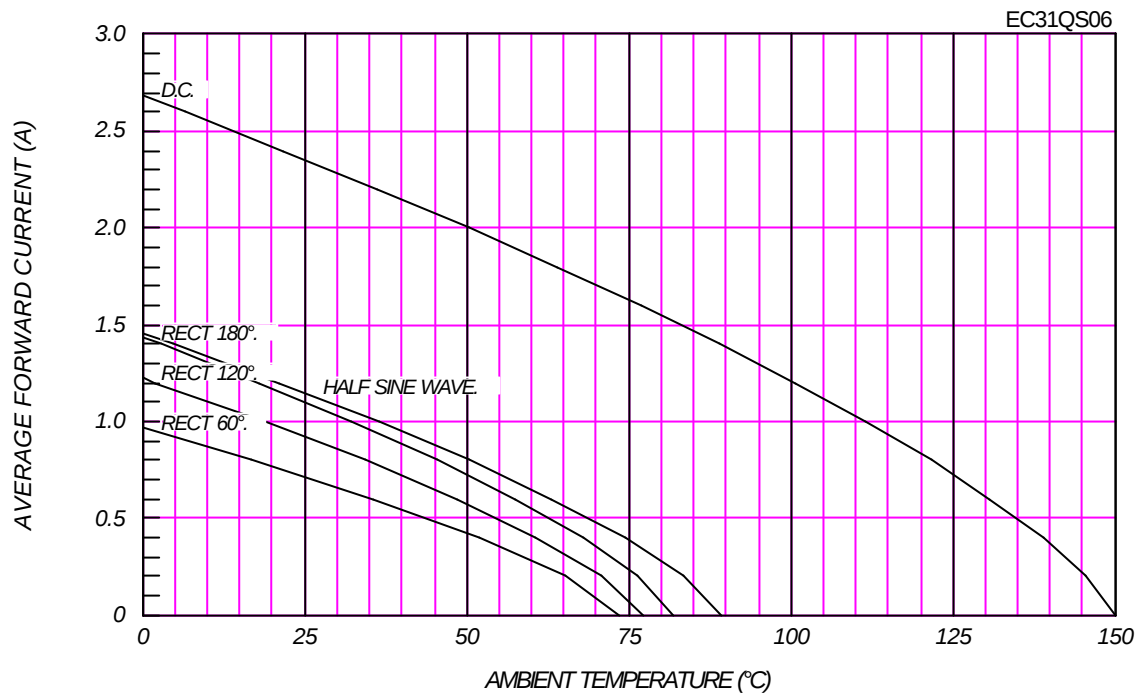
AVERAGE REVERSE POWER DISSIPATION

EC31QS06

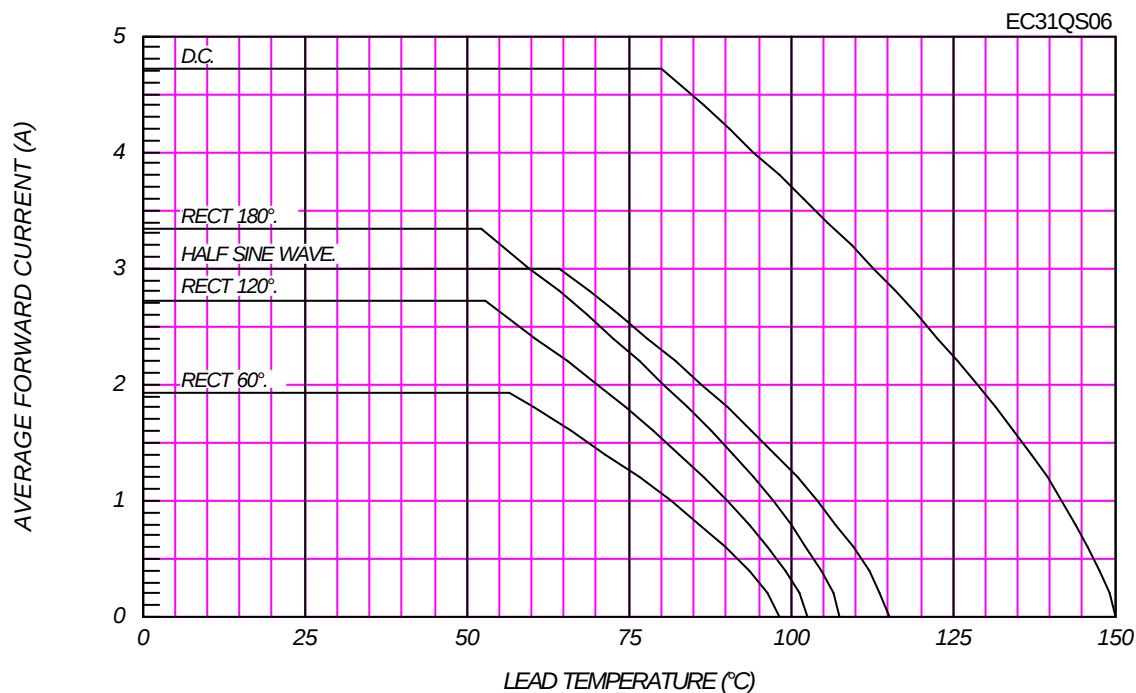




AVERAGE FORWARD CURRENT VS. AMBIENT TEMPERATURE
 Alumina Substrate Mounted(Soldering Land= 2×2 mm), $V_{RM}=60V$



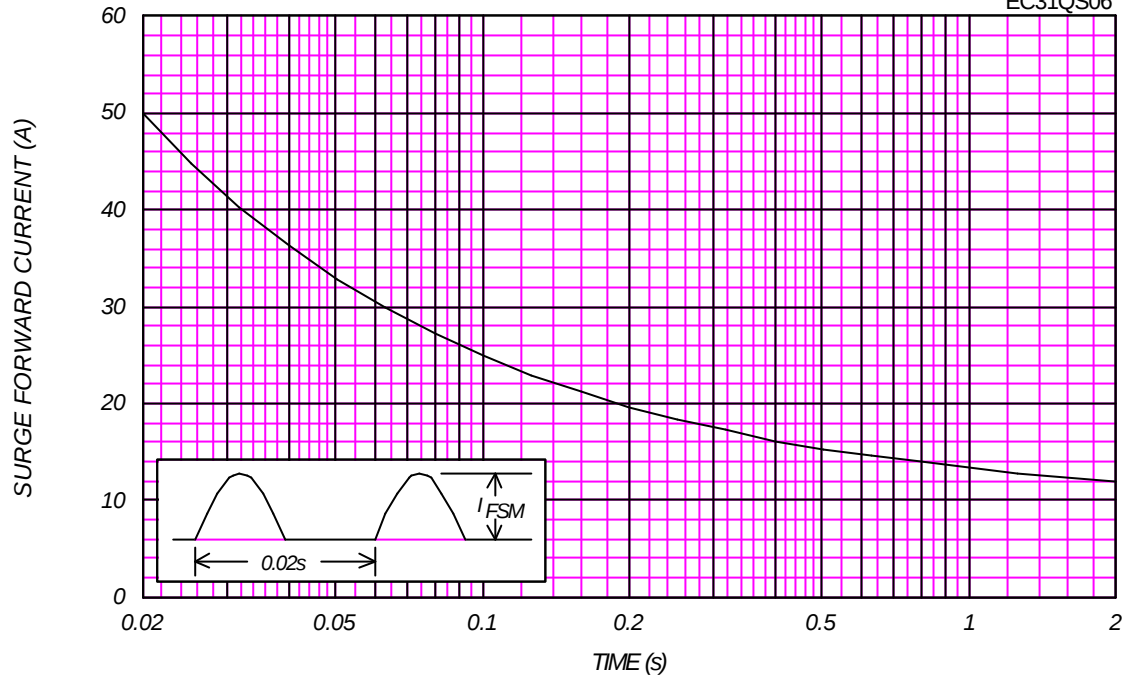
AVERAGE FORWARD CURRENT VS. LEAD TEMPERATURE
 $V_{RM}=60V$



SURGE CURRENT RATINGS

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

EC31QS06



JUNCTION CAPACITANCE VS. REVERSE VOLTAGE

T_j=25°C, V_m=20mV_{RMS}, f=100kHz, Typical Value

EC31QS06

