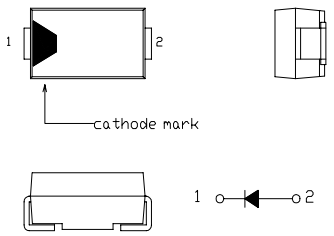
Nihon Inter Electronics Corporation

SBD Type : EC31QS04

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



Approx Net Weight:0.06g

Maximum Ratings

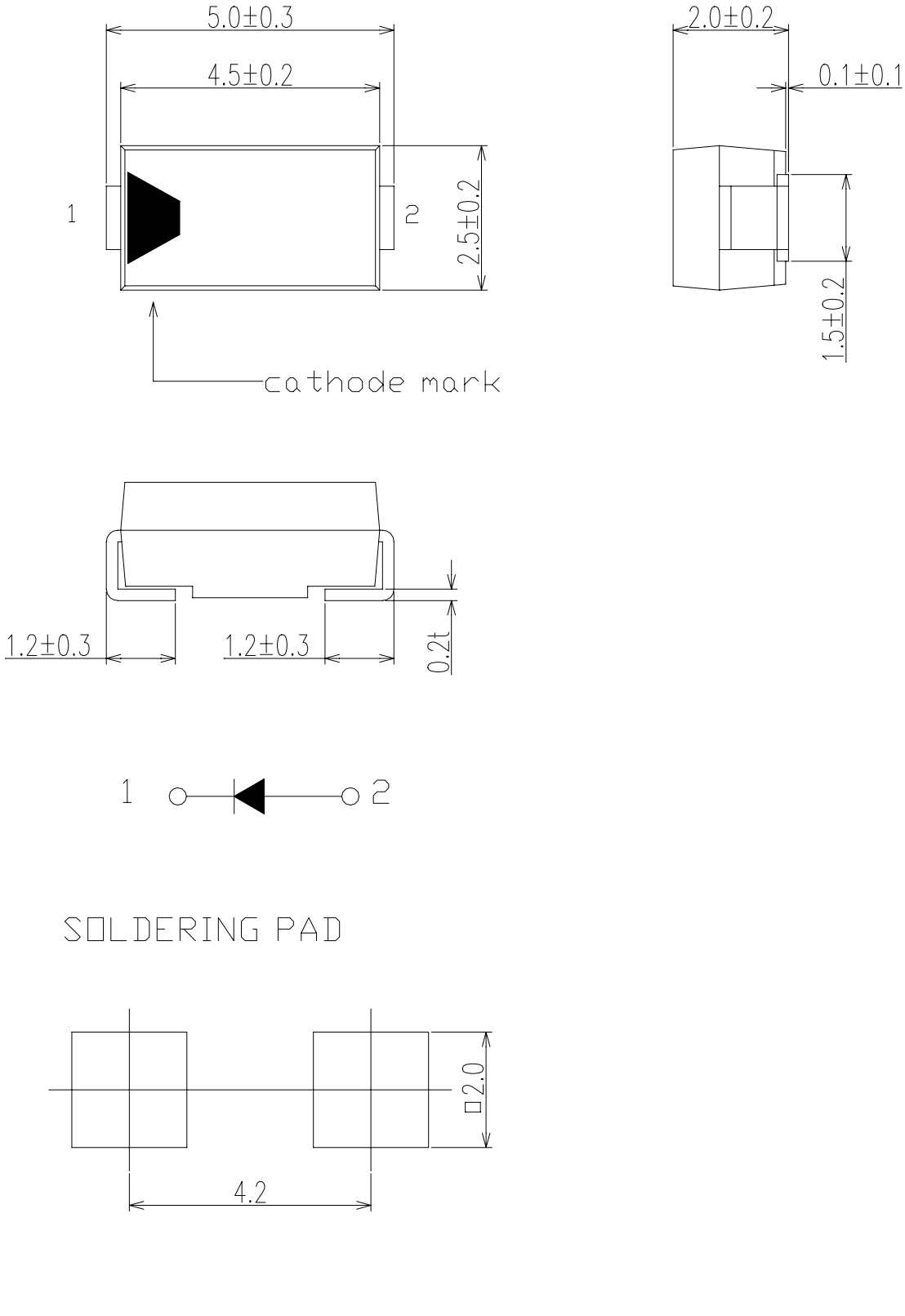
Rating	Symbol	EC31QS04			Unit
Repetitive Peak Reverse Voltage	V_{RRM}	40			V
Average Rectified Output Current	I_O	1.3	Ta=36 ℃ *1	50Hz Half Sine Wave Resistive Load	A
		3.0	Tl=81 ℃ Tl:Lead Temperature		
RMS Forward Current	$I_{F(RMS)}$	4.71			A
Surge Forward Current	I_{FSM}	60	50Hz Half Sine Wave,1cycle Non-repetitive		A
Operating JunctionTemperature Range	T_{jw}	-40 to +150			℃
Storage Temperature Range	T_{stg}	-40 to +150			℃

Electrical • Thermal Characteristics

Characteristics		Symbol	Conditions	Min.	Typ.	Max.	Unit
Peak Reverse Current		I_{RM}	Tj= 25℃, V_{RM}= V_{RRM}	-	-	3	mA
Peak Forward Voltage		V_{FM}	Tj= 25℃, I_{FM}= 3.0A	-	-	0.55	V
Thermal Resistance	Junction to Ambient	$Rth_{(j-a)}$	*1	-	-	108	℃/W
	Junction to Lead	$Rth_{(j-l)}$	-	-	-	23	

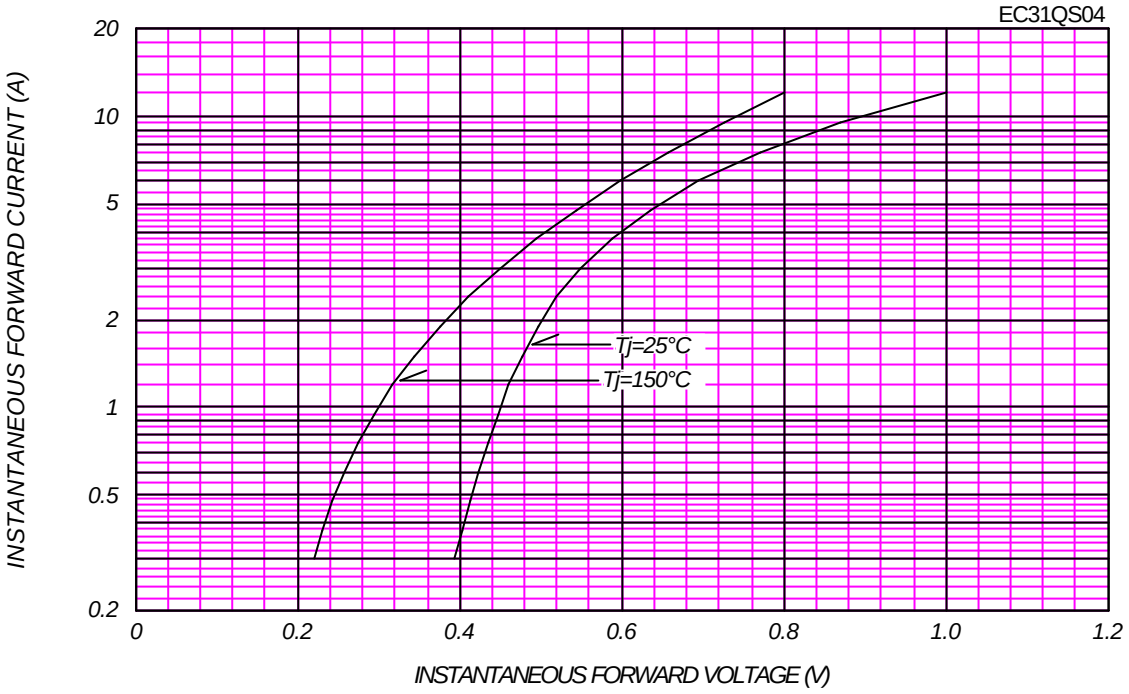
*1 Alumina Substrate Mounted
Soldering Lands=2x2mm,Both Sides

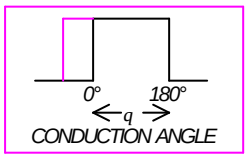
EC31QS_ OUTLINE DRAWING (Dimensions in mm)



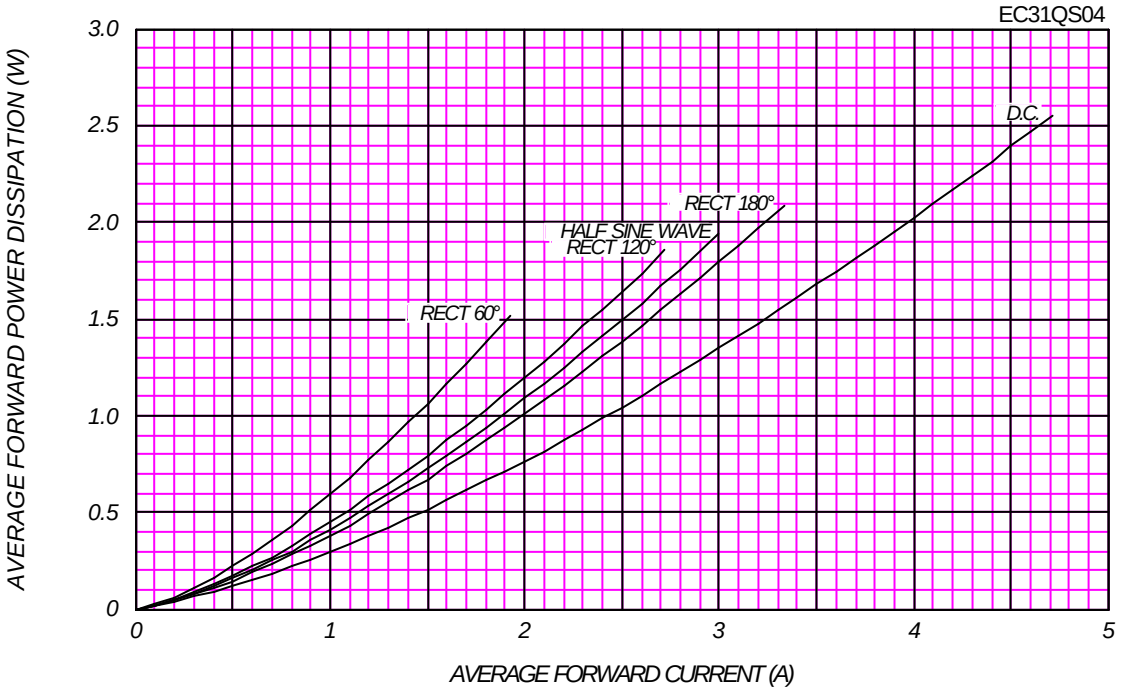
SOLDERING PAD

FORWARD CURRENT VS. VOLTAGE



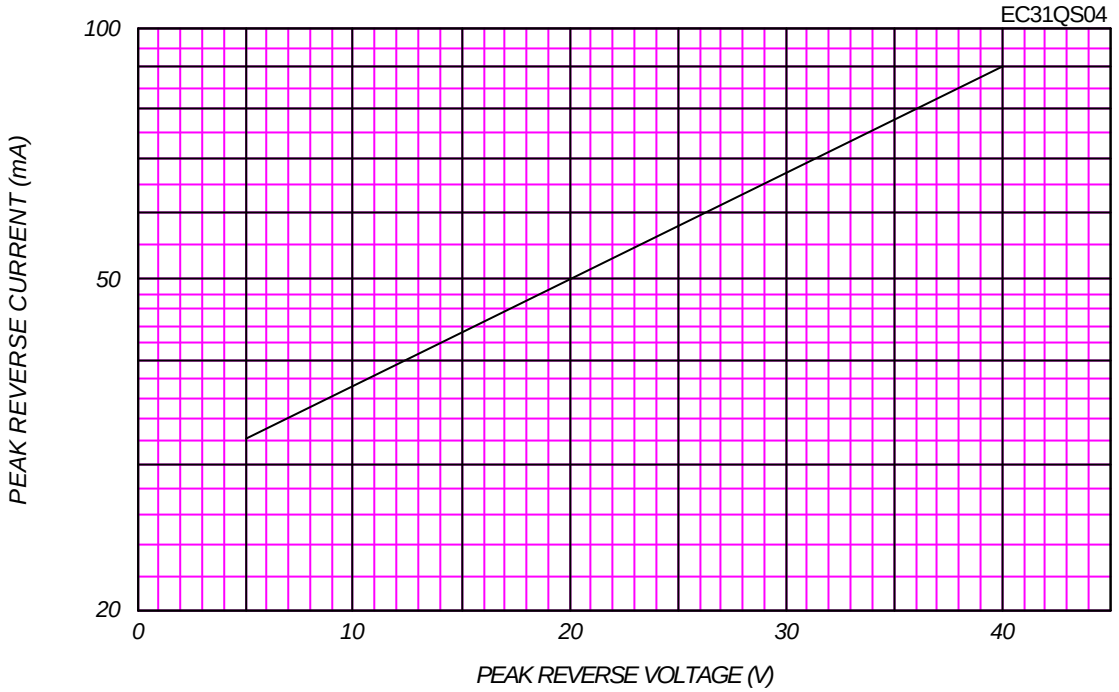


AVERAGE FORWARD POWER DISSIPATION

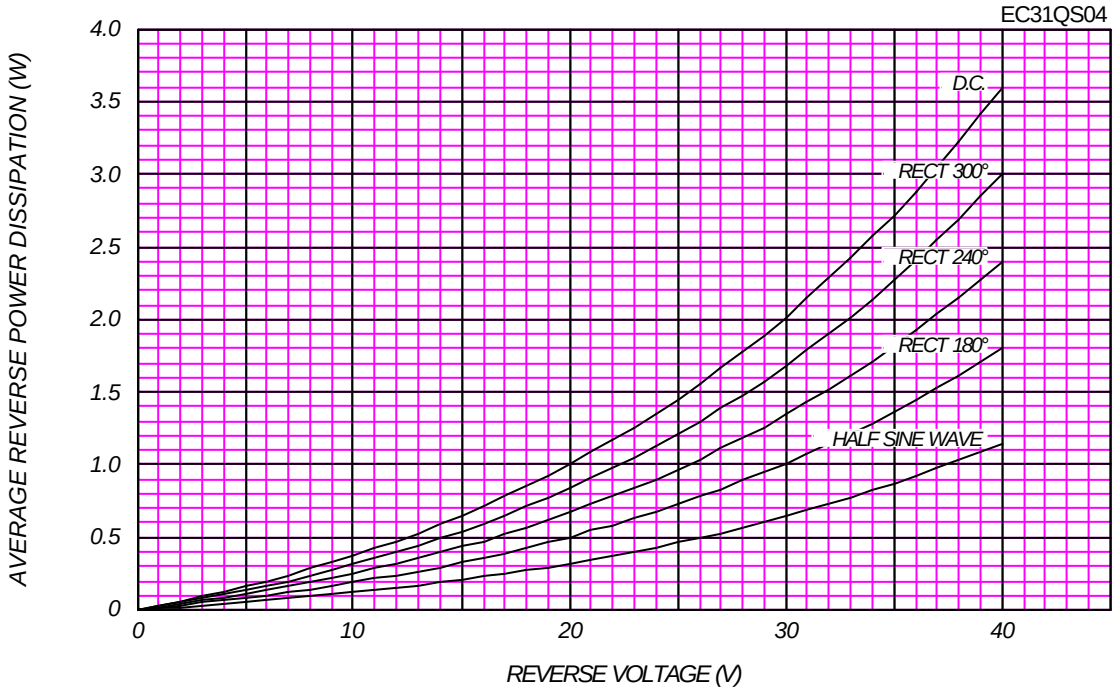


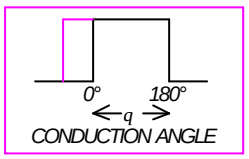
PEAK REVERSE CURRENT VS. PEAK REVERSE VOLTAGE

Tj= 150 °C



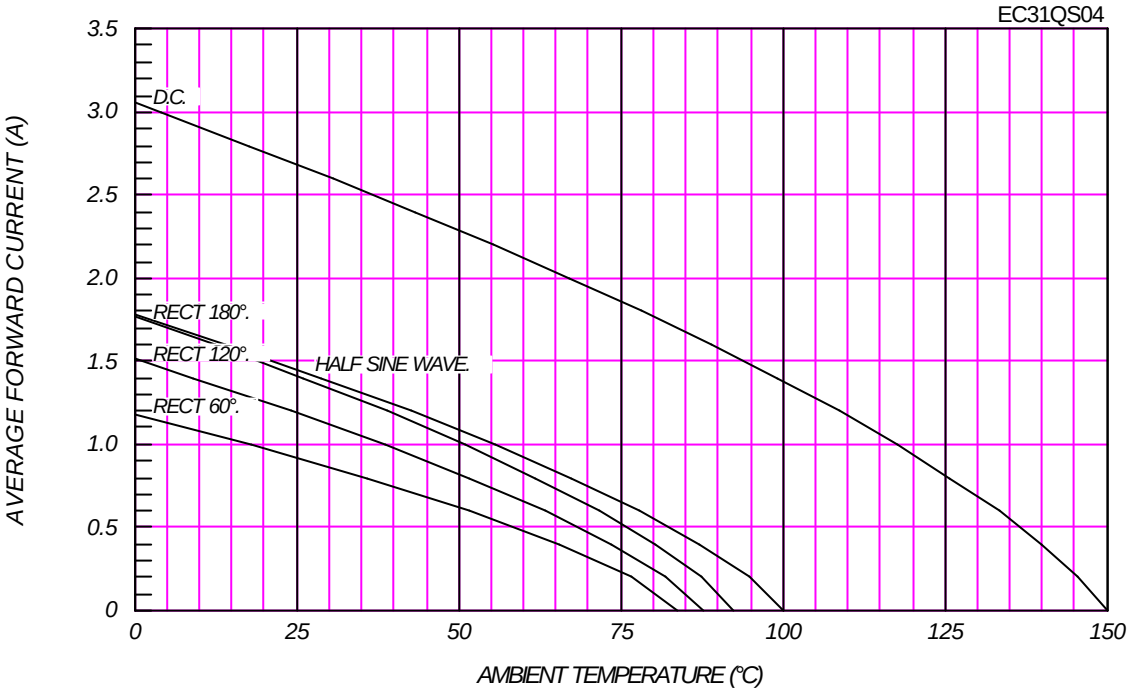
AVERAGE REVERSE POWER DISSIPATION

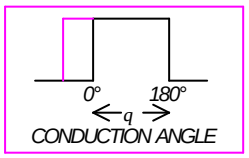




AVERAGE FORWARD CURRENT VS. AMBIENT TEMPERATURE

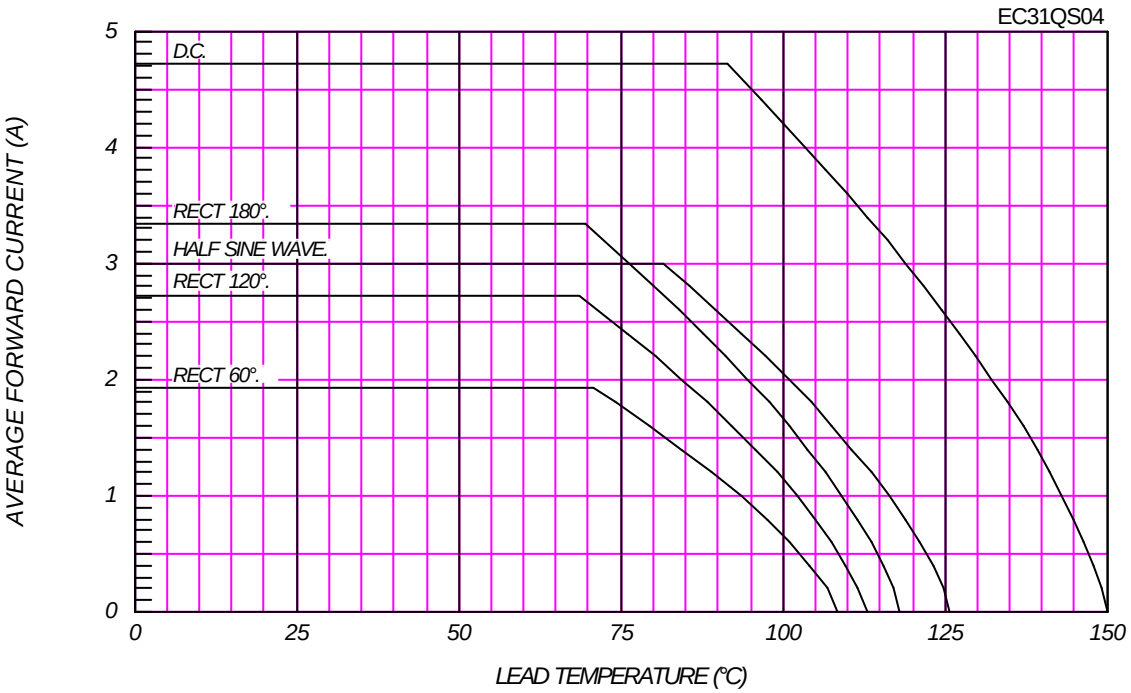
Alumina Substrate Mounted(Soldering Land=2×2mm),V_{RM}=40V





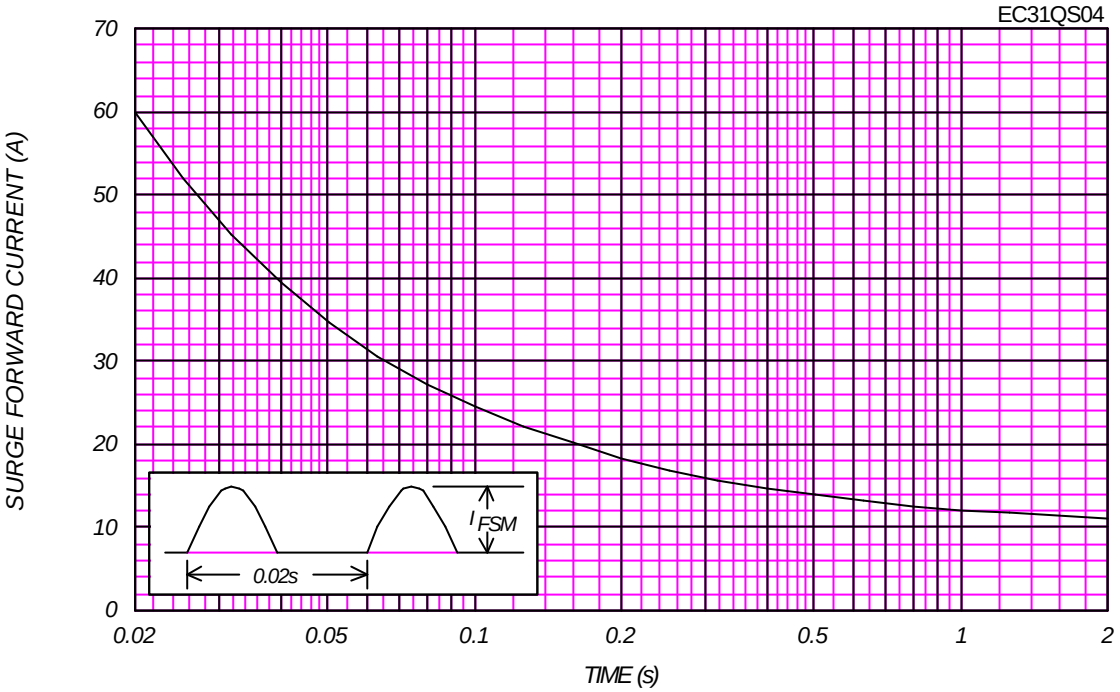
AVERAGE FORWARD CURRENT VS. LEAD TEMPERATURE

V_{RM}=40V



SURGE CURRENT RATINGS

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



JUNCTION CAPACITANCE VS. REVERSE VOLTAGE

Tj=25° C,Vm=20mV$_{RMS}$,f=100kHz,Typical Value