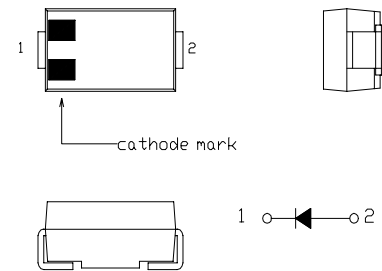


# SBD      Type : EC21QS03L

## 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

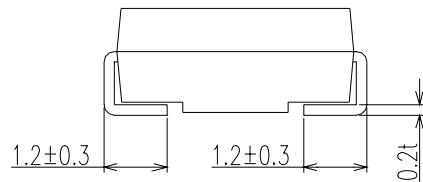
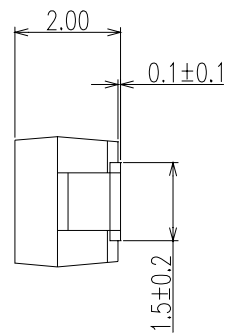
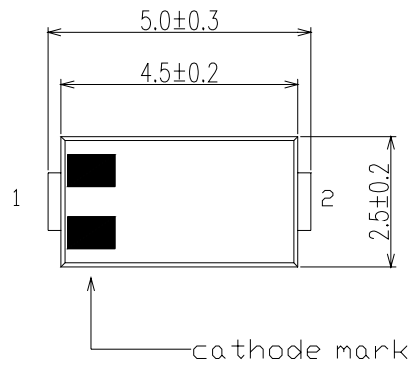
Rating	Symbol	EC21QS03L			Unit
Repetitive Peak Reverse Voltage	V <sub>RRM</sub>	30			V
Average Rectified Output Current	I <sub>o</sub>	1.3	Ta=31 °C *1	50Hz Half Sine	A
		2.0	Tl=98 °C	Wave Resistive Load	
RMS Forward Current	I <sub>F(RMS)</sub>	3.14			A
Surge Forward Current	I <sub>FSM</sub>	50	50Hz Half Sine Wave,1cycle Non-repetitive		A
Operating JunctionTemperature Range	T <sub>jw</sub>	-40 to +150			°C
Storage Temperature Range	T <sub>stg</sub>	-40 to +150			°C

## Electrical • Thermal Characteristics

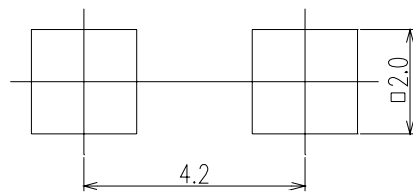
Characteristics		Symbol	Conditions	Min.	Typ.	Max.	Unit
Peak Reverse Current		$I_{RM}$	$T_j = 25\text{ }^{\circ}\text{C}$ , $V_{RM} = V_{RRM}$	-	-	2	mA
Peak Forward Voltage		$V_{FM}$	$T_j = 25\text{ }^{\circ}\text{C}$ , $I_{FM} = 2.0\text{A}$	-	-	0.47	V
Thermal Resistance	Junction to Ambient	$R_{th(j-a)}$	Alumina Substrate Mounted *1	-	-	108	$^{\circ}\text{C}/\text{W}$
	Junction to Lead	$R_{th(j-l)}$	-	-	-	23	

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

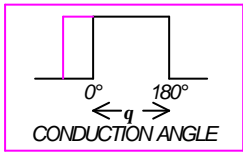
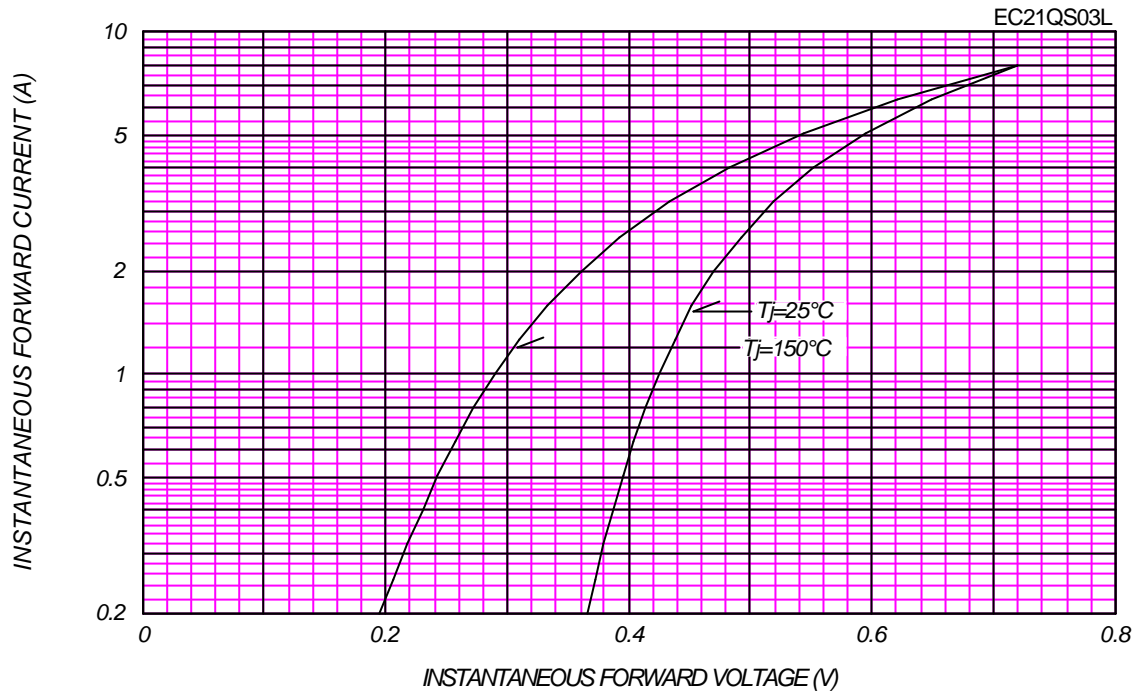
# EC21QS03L OUTLINE DRAWING (Dimensions in mm)



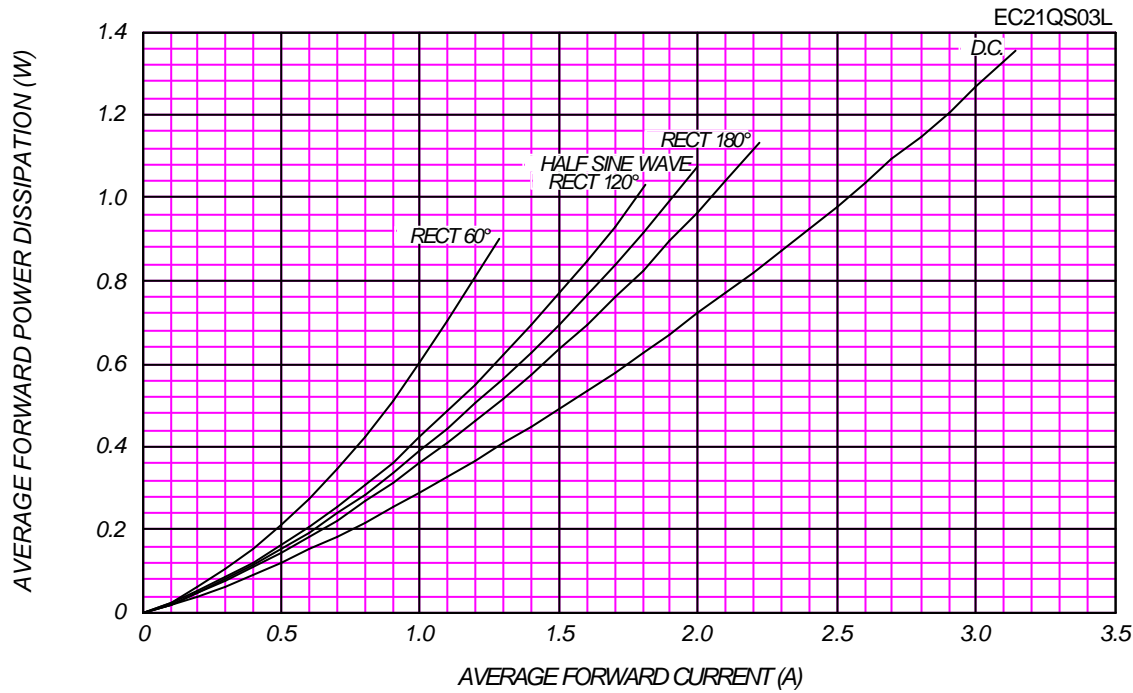
soldering pad



FORWARD CURRENT VS. VOLTAGE



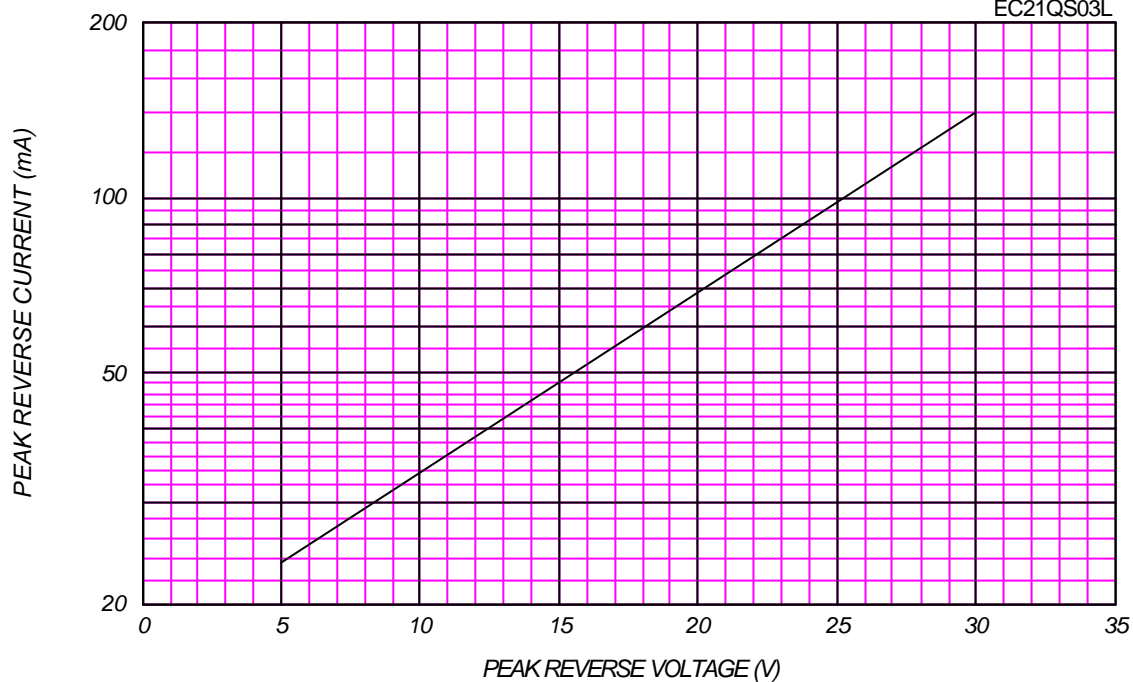
AVERAGE FORWARD POWER DISSIPATION



# PEAK REVERSE CURRENT VS. PEAK REVERSE VOLTAGE

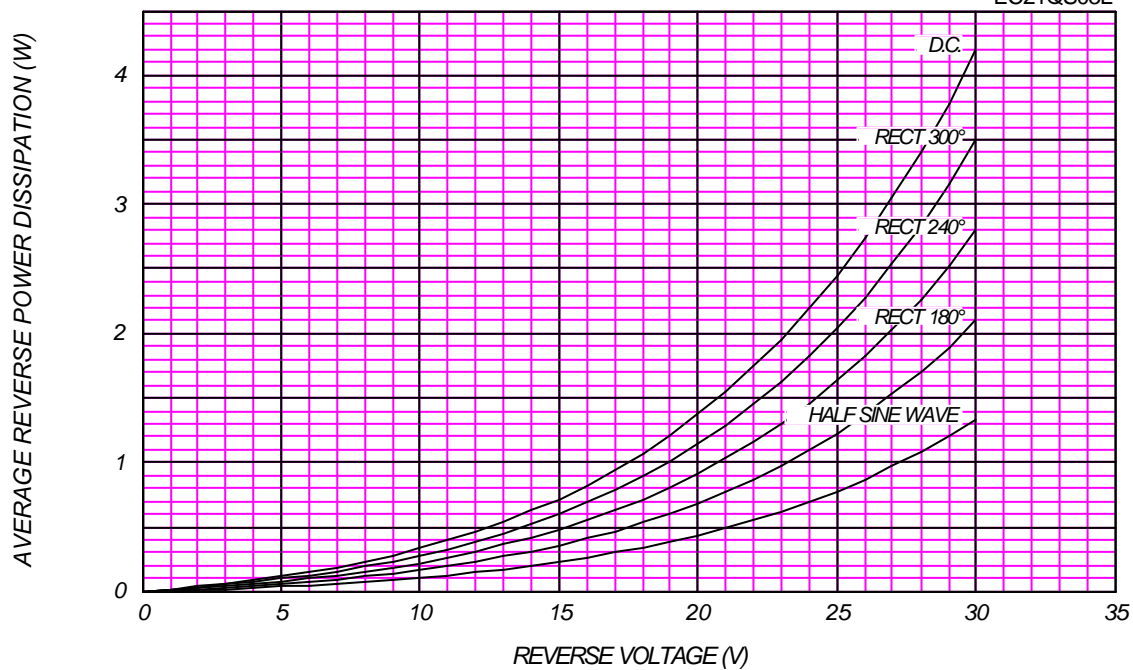
$T_j = 150\text{ }^{\circ}\text{C}$

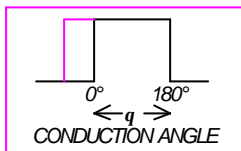
EC21QS03L



# AVERAGE REVERSE POWER DISSIPATION

EC21QS03L

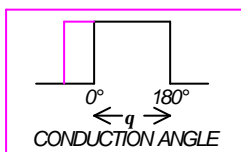
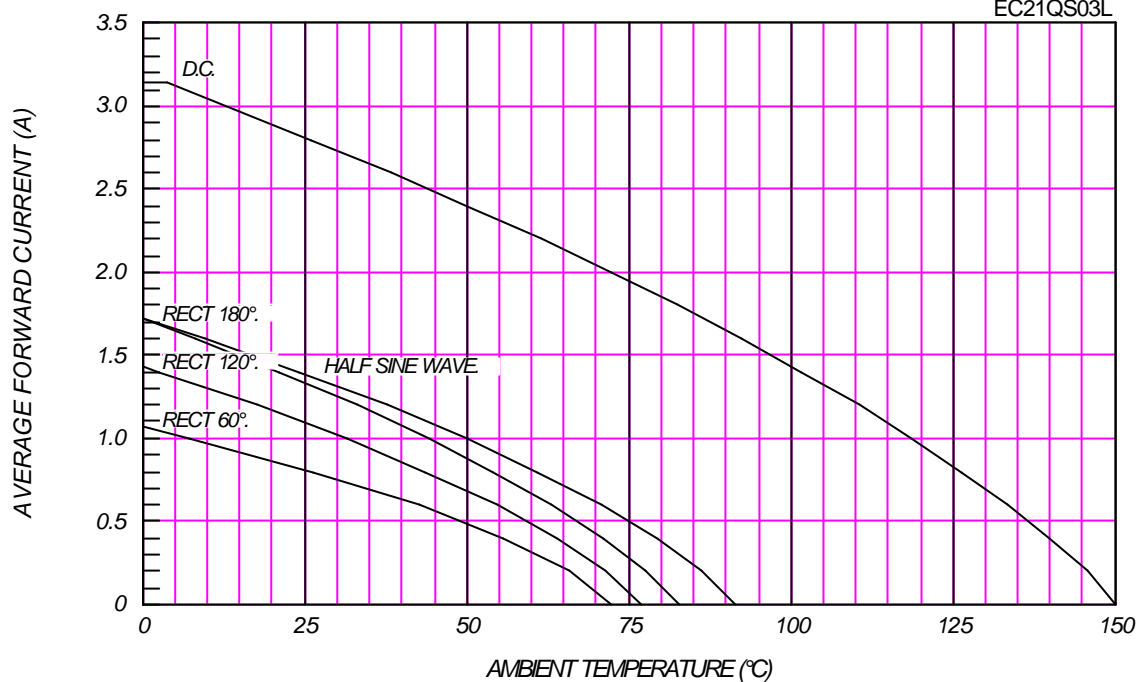




### AVERAGE FORWARD CURRENT VS. AMBIENT TEMPERATURE

Alumina Substrate Mounted (Land = 2 x 2 mm),  $V_{RM} = 30\text{ V}$

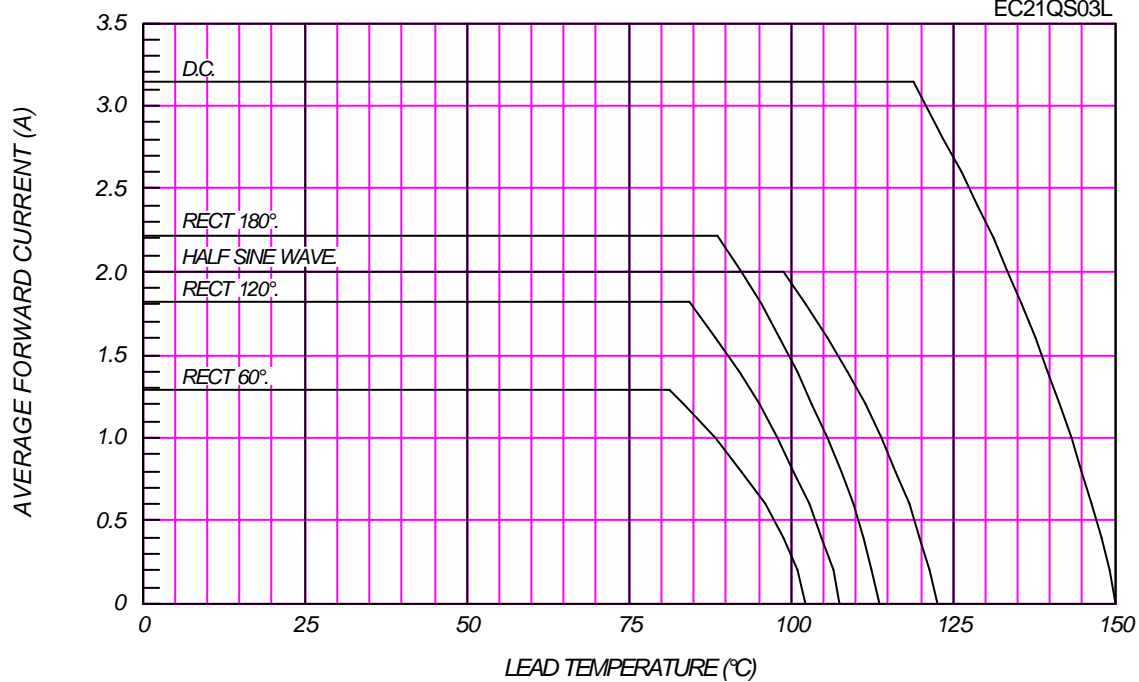
EC21QS03L



### AVERAGE FORWARD CURRENT VS. LEAD TEMPERATURE

$V_{RM} = 30\text{ V}$

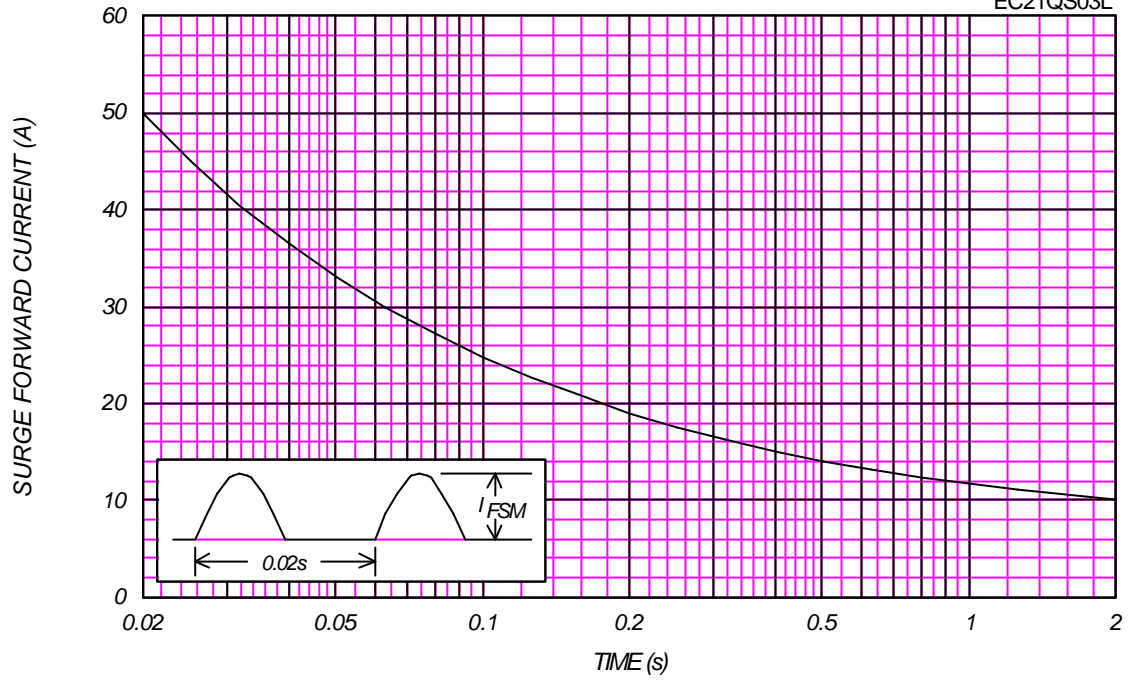
EC21QS03L



### SURGE CURRENT RATINGS

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

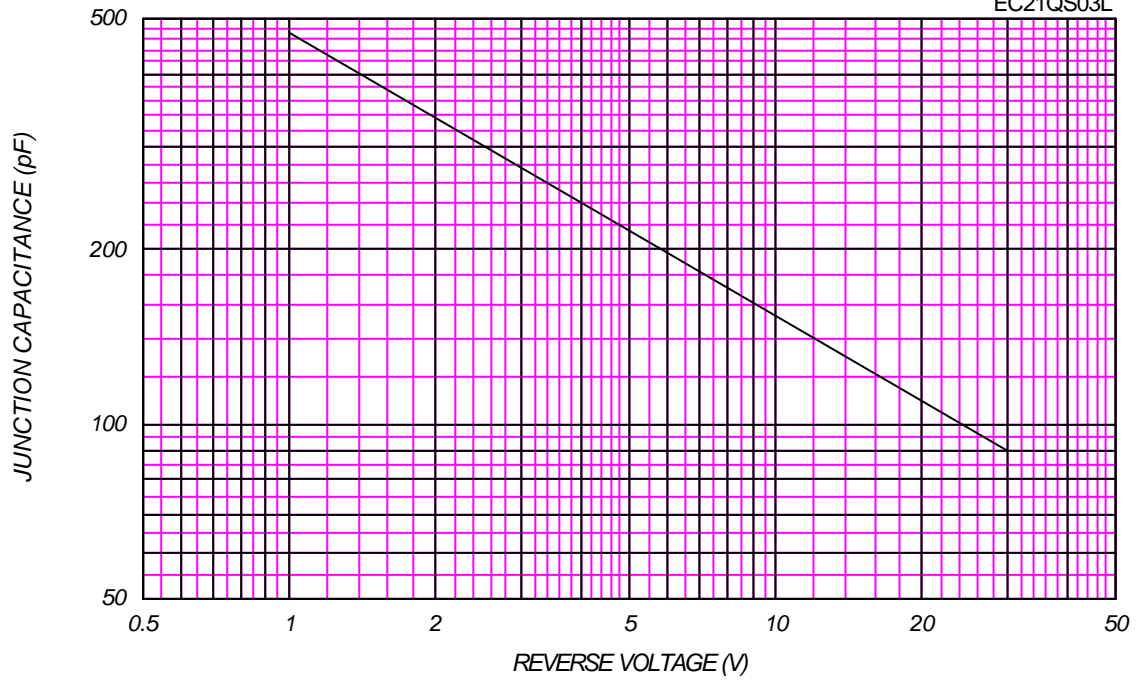
EC21QS03L



### JUNCTION CAPACITANCE VS. REVERSE VOLTAGE

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

EC21QS03L



This datasheet has been downloaded from:

[www.DatasheetCatalog.com](http://www.DatasheetCatalog.com)

Datasheets for electronic components.