

**VOLTAGE RANGE: 60V**  
**CURRENT: 3.0 A**

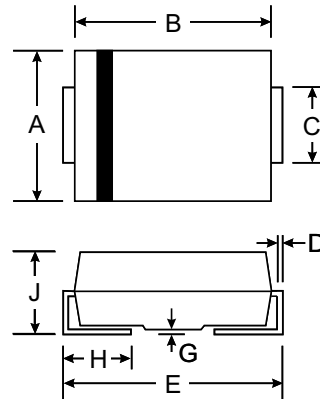


### Features

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

### Mechanical Data

- Case: SMB/DO-214AA, Molded Plastic
- Terminals: Solder Plated, Solderable per MIL-STD-750, Method 2026
- Polarity: Cathode Band or Cathode Notch
- Marking: Type Number
- Weight: 0.093 grams (approx.)



SMB(DO-214AA)		
Dim	Min	Max
A	3.30	3.94
B	4.06	4.70
C	1.91	2.21
D	0.15	0.31
E	5.00	5.59
G	0.10	0.20
H	0.76	1.52
J	2.00	2.62
All Dimensions in mm		

### Maximum Ratings @ T<sub>A</sub> = 25°C unless otherwise specified

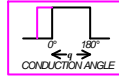
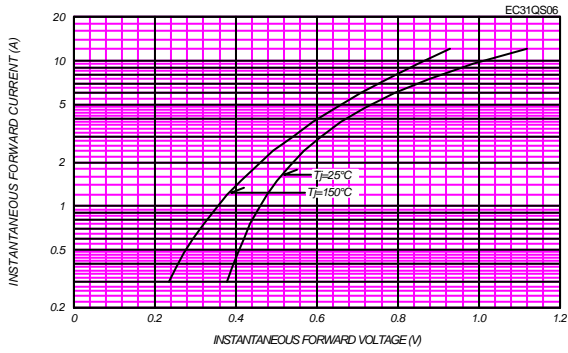
Characteristic	Symbol	Limits	Unit
Repetitive Peak Reverse Voltage	V <sub>RRM</sub>	60	V
Average Rectified Output Current 50Hz Half Sine Wave Resistive Load	I <sub>o</sub>	1.0 3.0	A
R.M.S. Forward Current	I <sub>F(RMS)</sub>	4.71	A
Surge Forward Current 50Hz Half Sine Wave, I <sub>cycle</sub> , Non-repetitive	I <sub>FSM</sub>	50	A
Operating Junction Temperature Range	T <sub>jw</sub>	-40 to +150	°C
Storage Temperature Range	T <sub>stg</sub>	-40 to +150	°C

### Electrical Characteristics @ T<sub>A</sub> = 25°C unless otherwise specified

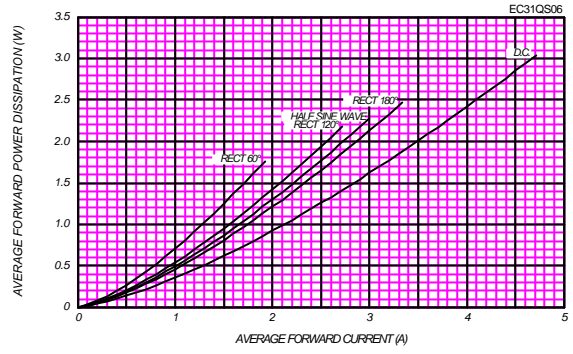
Characteristic	Symbol	Min	Typ	Max	Unit
Peak Reverse Current T <sub>j</sub> = 25°C, V <sub>RM</sub> = V <sub>RRM</sub>	I <sub>RM</sub>	-	-	3	mA
Peak Forward Voltage T <sub>j</sub> = 25°C, I <sub>FM</sub> = 3.0A	V <sub>FM</sub>	-	-	0.61	V
Thermal Resistance Junction to Ambient *1	R <sub>th(j-a)</sub>	-	-	108	°C / W
	Junction to Lead	R <sub>th(j-l)</sub>	-	23	

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

FORWARD CURRENT VS. VOLTAGE

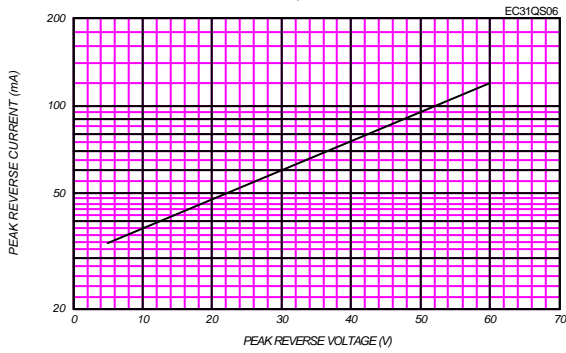


AVERAGE FORWARD POWER DISSIPATION

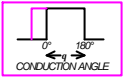
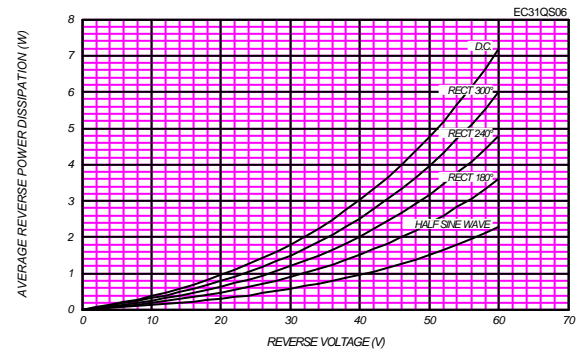


PEAK REVERSE CURRENT VS. PEAK REVERSE VOLTAGE

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

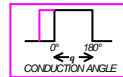
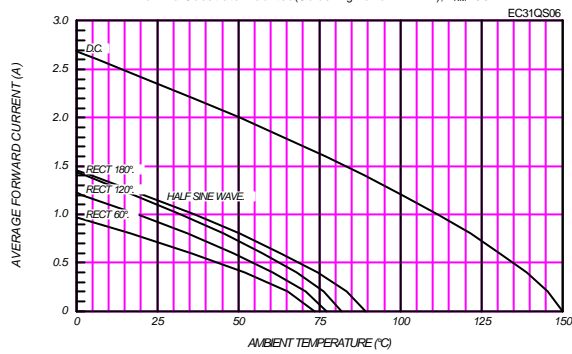


AVERAGE REVERSE POWER DISSIPATION



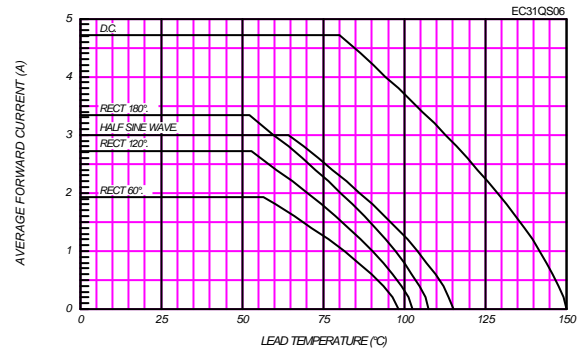
AVERAGE FORWARD CURRENT VS. AMBIENT TEMPERATURE

Alumina Substrate Mounted (Soldering Land=2x2mm),  $V_{RM}=60\text{V}$



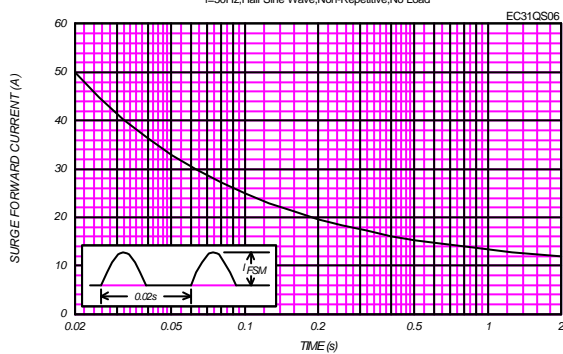
AVERAGE FORWARD CURRENT VS. LEAD TEMPERATURE

$V_{RM}=60\text{V}$



SURGE CURRENT RATINGS

$f=50\text{Hz}$ , Half Sine Wave, Non-Repetitive, No Load



JUNCTION CAPACITANCE VS. REVERSE VOLTAGE

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

