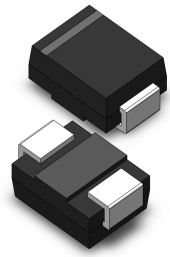
EC31QS06

SURFACE MOUNT SCHOTTKY BARRIER DIODES

VOLTAGE RANGE: 60V
CURRENT: 3.0 A



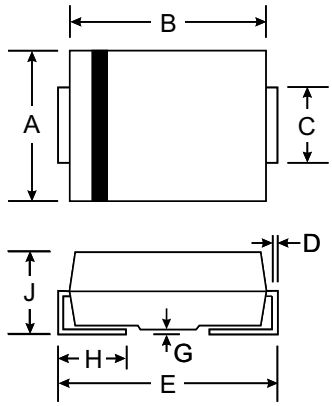
Features

- 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.)

RoHS COMPLIANT



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_A = 25°C unless otherwise specified

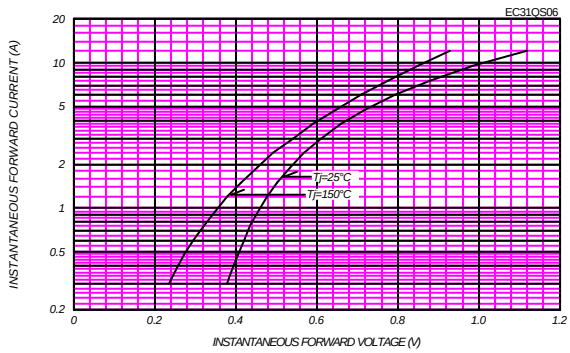
Characteristic	Symbol	Limits	Unit
RepetitivePeak Reverse Voltage	VRRM	60	V
Average Rectified Output Current 50Hz Half Sine Wave Resistive Load	Io	1.0 3.0	A
R.M.S.Forward Current	IF(RMS)	4.71	A
Surge Forward Current 50Hz Half Sine Wave,Icycle,Non-repetitive	IFSM	50	A
Operating Junction Temperature Range	Tjw	-40 to +150	°C
Storage Temperature Range	Tstg	-40 to +150	°C

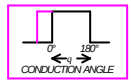
Electrical Characteristics @ T_A = 25°C unless otherwise specified

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

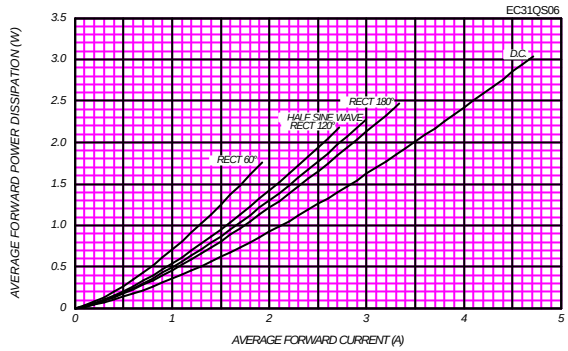
*1 Alumina Substrate Mounted
Soldering Lands=2x2mm,Both Sides

FORWARD CURRENT VS. VOLTAGE



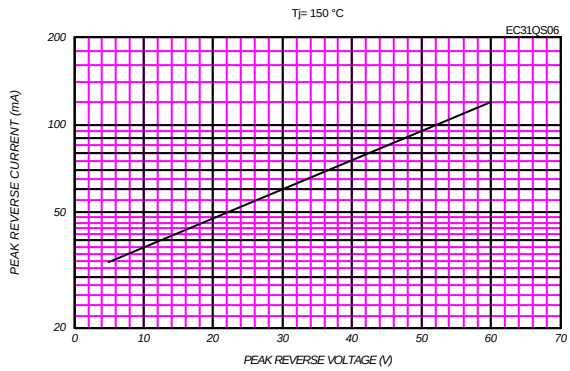


AVERAGE FORWARD POWER DISSIPATION

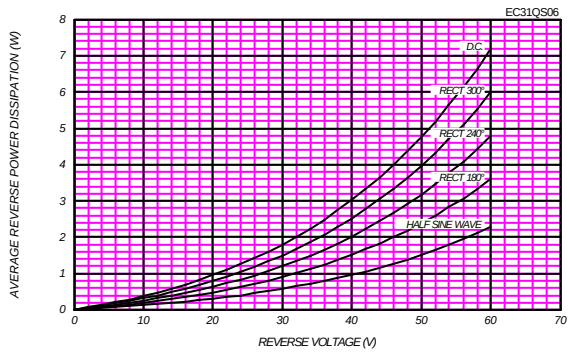


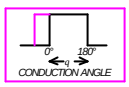
PEAK REVERSE CURRENT VS. PEAK REVERSE VOLTAGE

Tj= 150 °C



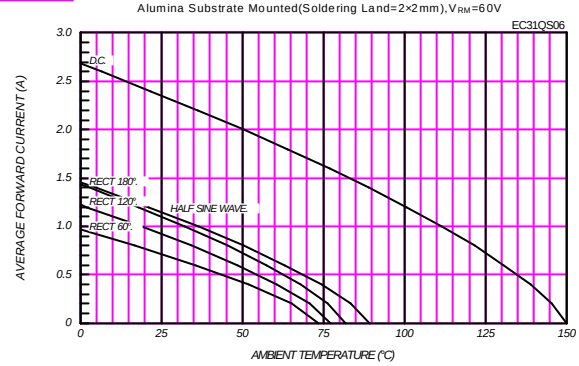
AVERAGE REVERSE POWER DISSIPATION

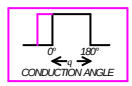




AVERAGE FORWARD CURRENT VS. AMBIENT TEMPERATURE

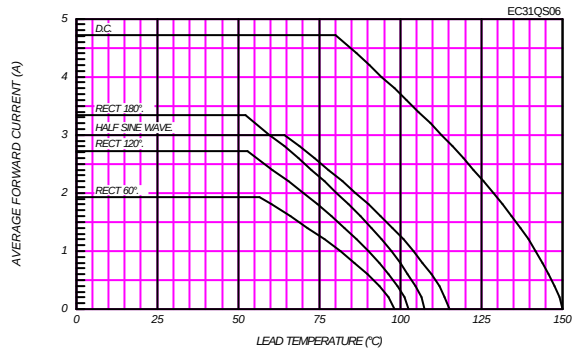
Alumina Substrate Mounted(Soldering Land=2×2mm),V_{RM}=60V





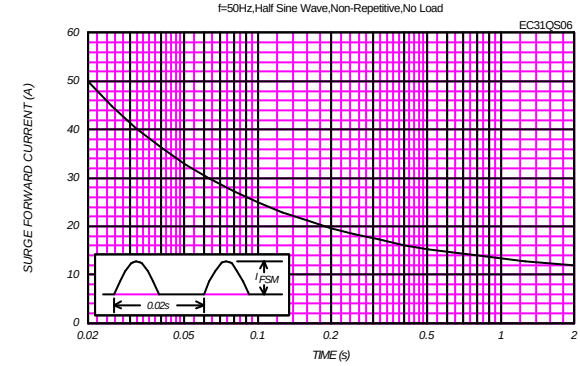
AVERAGE FORWARD CURRENT VS. LEAD TEMPERATURE

V_{RM}=60V



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