

VOLTAGE RANGE: 20V
CURRENT: 3.0 A

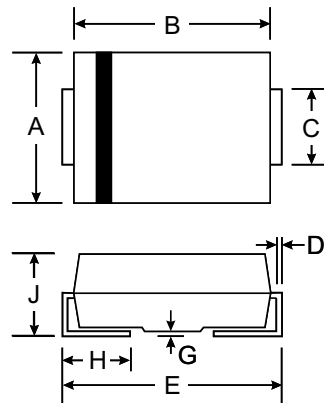
Features

- Miniature Size, Surface Mount Device
- Extremely 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_A = 25°C unless otherwise specified

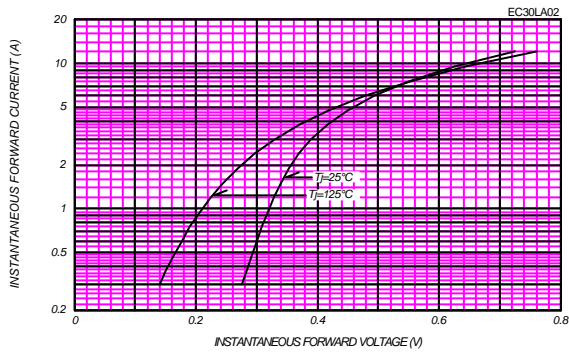
Characteristic	Symbol	Limits	Unit
Repetitive Peak Reverse Voltage	VRRM	20	V
Non-repetitive Peak Reverse Voltage	VRSM	25	V
Average Rectified Output Current 50Hz Half Sine Wave Resistive Load <small>T_a=25°C * 1 T₁=85°C</small>	I _o	2.1 3.0	A
R.M.S. Forward Current	IF(RMS)	4.71	A
Surge Forward Current 50Hz Half Sine Wave, 1 cycle, Non-repetitive	IFSM	50	A
Operating Junction Temperature Range	T _{jw}	-40 to +125	°C
Storage Temperature Range	T _{stg}	-40 to +125	°C

Electrical Characteristics @ T_A = 25°C unless otherwise specified

Characteristic	Symbol	Min	Typ	Max	Unit
Peak Reverse Current	IRM	-	-	3	mA
Peak Forward Voltage	VFM	-	-	0.39	V
Thermal Resistance Junction to Ambient Alumina Substrate Mounted *1 Junction to Lead	R _{th(j-a)}	-	-	108	°C /W
	R _{th(j-l)}	-	-	23	

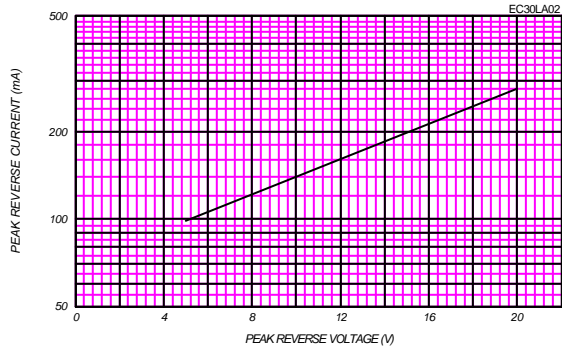
*1 Alumina Substrate Mounted (Soldering Lands=2x2mm, Both Sides)

FORWARD CURRENT VS. VOLTAGE



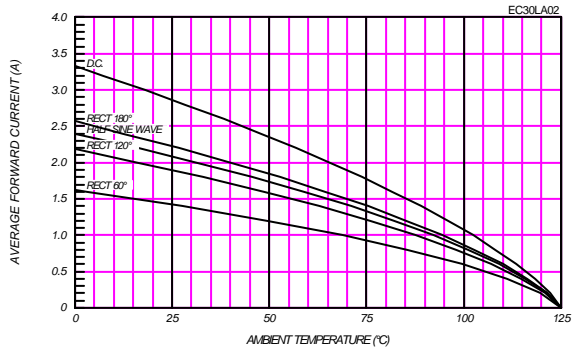
PEAK REVERSE CURRENT VS. PEAK REVERSE VOLTAGE

T_j = 125 °C



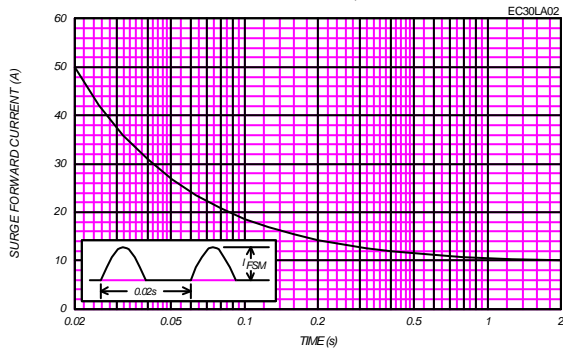
AVERAGE FORWARD CURRENT VS. AMBIENT TEMPERATURE

Alumina Substrate mounted(Land=2x2mm), V_{RM}=0V

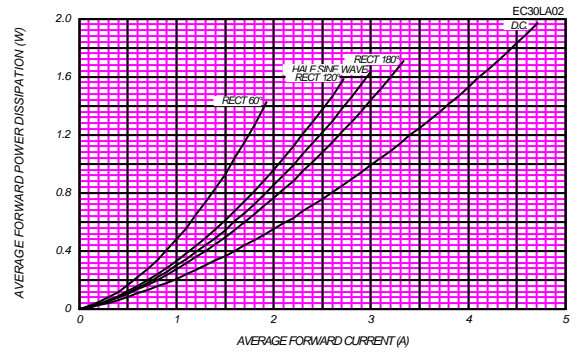


SURGE CURRENT RATINGS

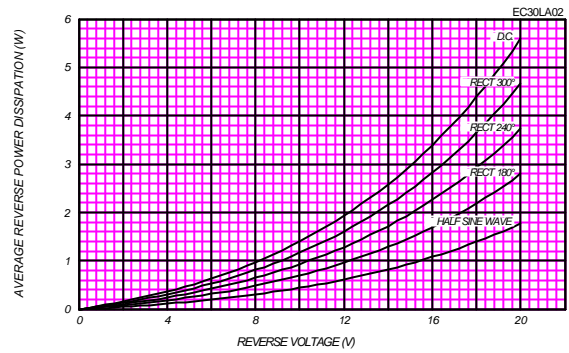
f=50Hz,Half Sine Wave,Non-Repitive,No Load



AVERAGE FORWARD POWER DISSIPATION

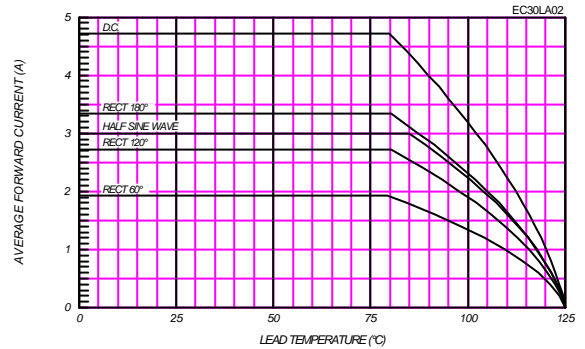


AVERAGE REVERSE POWER DISSIPATION



AVERAGE FORWARD CURRENT VS. LEAD TEMPERATURE

V_{RM}=0V



JUNCTION CAPACITANCE VS. REVERSE VOLTAGE

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

