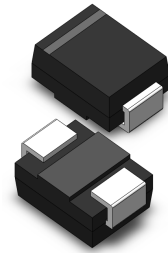


**VOLTAGE RANGE: 300V**  
**CURRENT: 2.0 A**

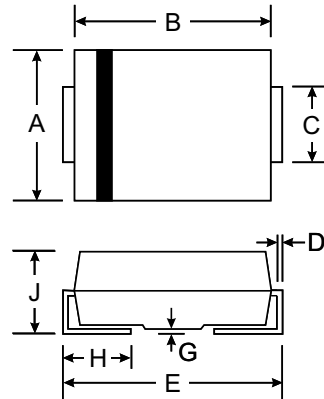


### Features

- For surface mount applications
- Low profile package
- Easy pick and place
- Glass passivated chip junction
- Superfast recovery times for high efficiency
- Low power loss, high efficiency
- High temperature soldering:  
250°C/10 seconds at terminals

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

Single phase, half wave, 60Hz, resistive or inductive load. For capacitive load, derate current by 20%.

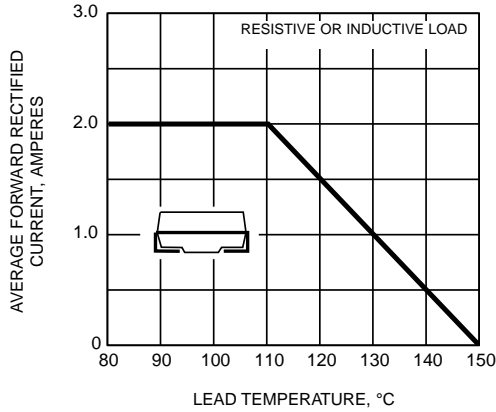
Characteristic	Symbol	ES2F	Unit
Maximum repetitive peak reverse voltage	V <sub>RRM</sub>	300	Volts
Working peak reverse voltage	V <sub>RWM</sub>	225	Volts
Maximum RMS voltage	V <sub>RMS</sub>	210	Volts
Maximum DC blocking voltage	V <sub>DC</sub>	300	Volts
Maximum average forward rectified current at T <sub>L</sub> =110°C	I <sub>(AV)</sub>	2.0	Amps
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method) at T <sub>L</sub> =110°C	I <sub>FSM</sub>	50	Amps
Maximum instantaneous forward voltage at 2.0A	V <sub>F</sub>	1.10	Volts
Maximum DC reverse current at working peak reverse voltage T <sub>A</sub> =25°C T <sub>A</sub> =100°C	I <sub>R</sub>	10 200	μA
Maximum reverse recovery time (NOTE 1)	t <sub>rr</sub>	35	ns
Maximum reverse recovery time (NOTE 2)	t <sub>rr</sub>	50	ns
Maximum reverse recovery current (NOTE 2)	I <sub>RM</sub>	3.0	Amps
Maximum stored charge (NOTE 2)	Q <sub>rr</sub>	50	nC
Typical junction capacitance (NOTE 3)	C <sub>J</sub>	15	pF
Typical thermal resistance (NOTE 4)	R <sub>θJA</sub> R <sub>θJL</sub>	75 25	°C/W
Operating junction and storage temperature range	T <sub>J</sub> , T <sub>STG</sub>	-55 to +150	°C

**NOTES:**

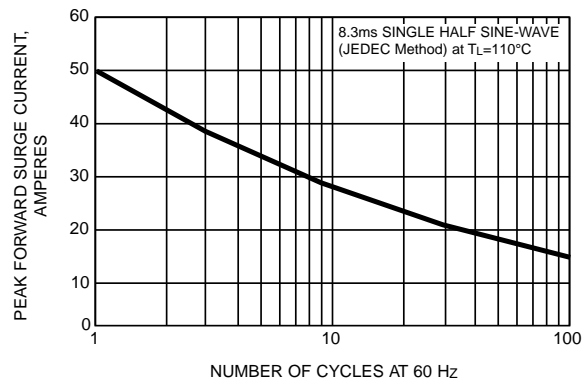
- (1) Reverse recovery test conditions: I<sub>F</sub>=0.5A, I<sub>R</sub>= 1.0A, I<sub>rr</sub>=0.25A
- (2) Measured at 1.0 MHz and applied reverse voltage of 4.0 Volts
- (3) Measured at I<sub>F</sub>=1.0A, di/dt=100A/μs, V<sub>R</sub>=30V, I<sub>rr</sub>=0.1I<sub>RM</sub>
- (4) Units mounted on P.C.B. 5.0 x 5.0mm (0.013mm thick) land areas

## RATING AND CHARACTERISTIC CURVES ES2F

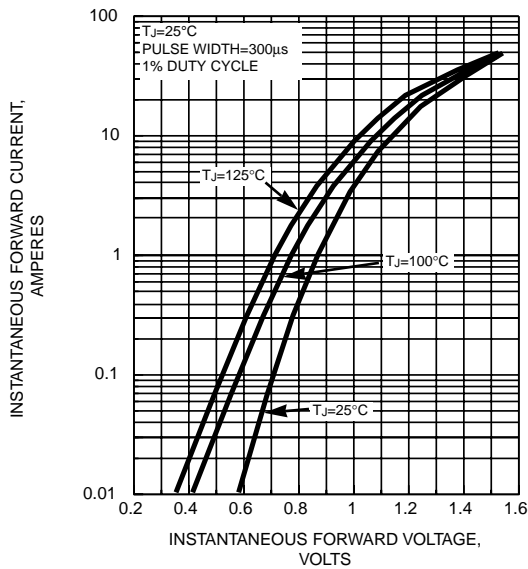
**FIG. 1 - MAXIMUM FORWARD CURRENT DERATING CURVE**



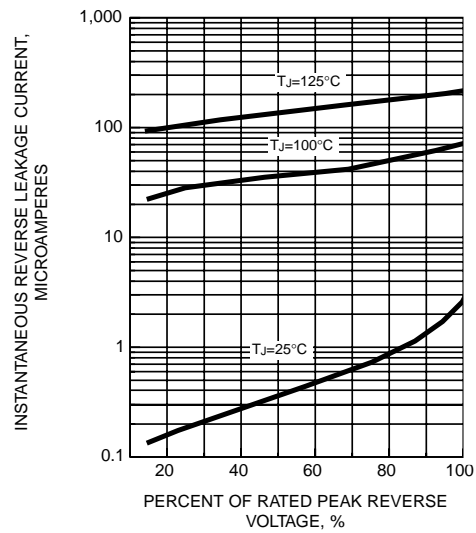
**FIG. 2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT**



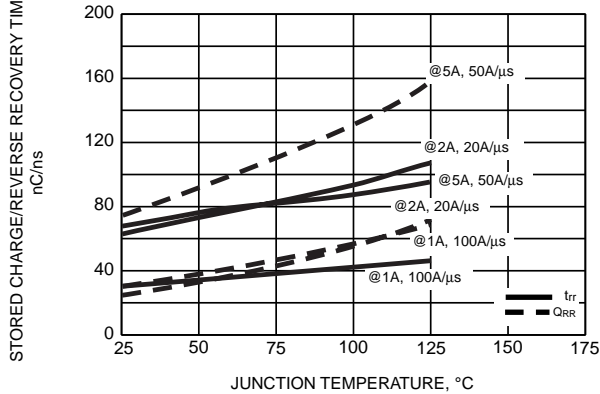
**FIG. 3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS PER LEG**



**FIG. 4 - TYPICAL REVERSE CHARACTERISTICS PER LEG**



**FIG. 5 - REVERSE SWITCHING CHARACTERISTICS PER LEG**



**FIG. 6 - TYPICAL JUNCTION CAPACITANCE PER LEG**

