

**VOLTAGE RANGE: 50 - 600V**

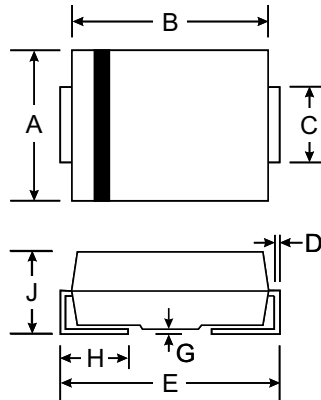
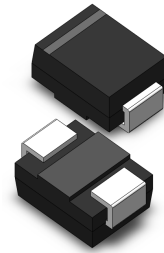
**CURRENT: 3.0 A**

### Features

- Low cost
- Low leakage
- Low forward voltage drop
- High current capability
- Easily cleaned with alcohol, Isopropanol and similar solvents
- The plastic material carries U/L recognition 94V-0

### 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%.

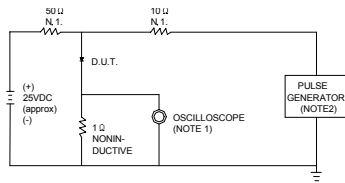
Characteristic	Symbol	ER3AB	ER3BB	ER3CB	ER3DB	ER3EB	ER3GB	ER3JB	Unit	
Maximum recurrent peak reverse voltage	V <sub>RRM</sub>	50	100	150	200	300	400	600	V	
Maximum RMS voltage	V <sub>RMS</sub>	35	70	105	140	210	280	420	V	
Maximum DC blocking voltage	V <sub>DC</sub>	50	100	150	200	300	400	600	V	
Maximum average forward rectified current @T <sub>A</sub> =75°C	I <sub>F(AV)</sub>	3.0							A	
Peak forward surge current 8.3ms single half-sine-wave superimposed on rated load @T <sub>J</sub> =125°C	I <sub>FSM</sub>	100							A	
Maximum instantaneous forward voltage @ 3.0A	V <sub>F</sub>	0.95			1.25		1.7		V	
Maximum reverse current @T <sub>A</sub> =25°C at rated DC blocking voltage @T <sub>A</sub> =125°C	I <sub>R</sub>	5.0				300				μA
Maximum reverse recovery time (Note 1)	t <sub>rr</sub>	35				ns				
Typical junction capacitance (Note 2)	C <sub>J</sub>	95				pF				
Typical thermal resistance (Note 3)	R <sub>θJA</sub>	40				°C/W				
Operating junction temperature range	T <sub>J</sub>	- 55 ----- + 150							°C	
Storage temperature range	T <sub>STG</sub>	- 55 ----- + 150							°C	

NOTE: 1. Measured with I<sub>F</sub>=0.5A, I<sub>R</sub>=1A, I<sub>rr</sub>=0.25A.

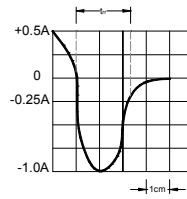
2. Measured at 1.0MHz and applied reverse voltage of 4.0V DC.

3. Thermal resistance junction to ambient.

**FIG.1 – TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTIC**

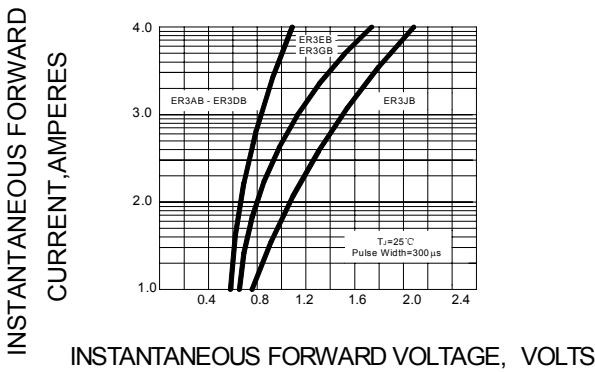


NOTES: 1. RISE TIME = 7ns MAX INPUT IMPEDANCE = 1MΩ. 22pF.  
 2. RISE TIME = 10ns MAX SOURCE IMPEDANCE = 50 Ω.

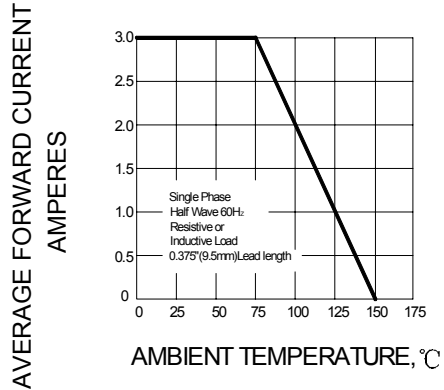


SET TIME BASE FOR 10 ns/cm

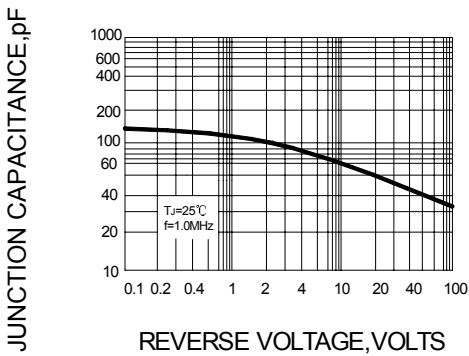
**FIG.2 – TYPICAL FORWARD CHARACTERISTIC**



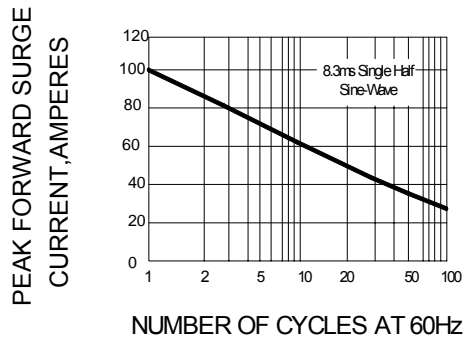
**FIG.3 – FORWARD DERATING CURVE**



**FIG.4 – TYPICAL JUNCTION CAPACITANCE**



**FIG.5 – PEAK FORWARD SURGE CURRENT**



**FIG.6 – TYPICAL REVERSE CHARACTERISTICS**

