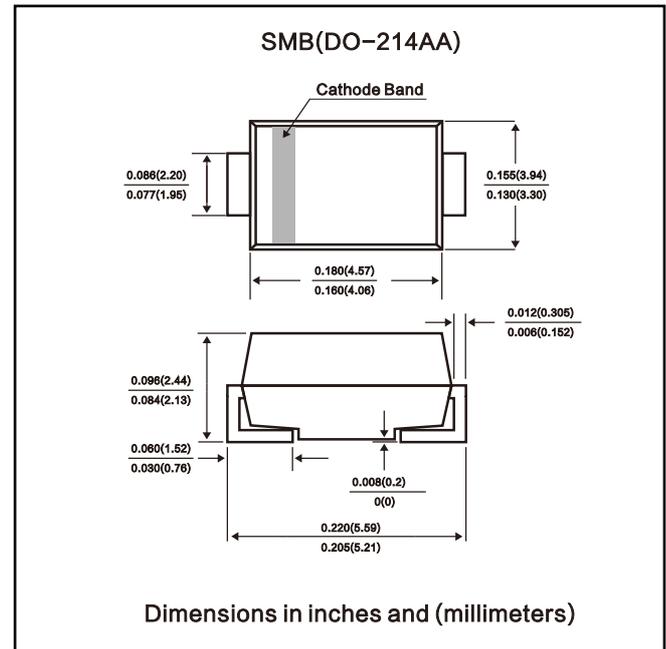


### Features

- 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.)



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

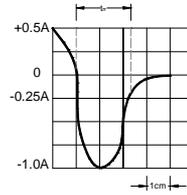
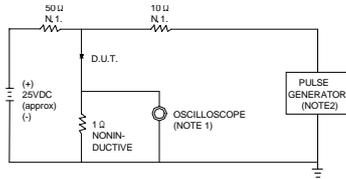
Single phase, half wave, 60Hz, resistive or inductive load. For capacitive load, derate current by 20%.

Characteristic	Symbol	ER3A	ER3B	ER3C	ER3D	ER3E	ER3G	ER3J	Unit
Maximum recurrent peak reverse voltage	$V_{RRM}$	50	100	150	200	300	400	600	V
Maximum RMS voltage	$V_{RMS}$	35	70	105	140	210	280	420	V
Maximum DC blocking voltage	$V_{DC}$	50	100	150	200	300	400	600	V
Maximum average forward rectified current @ $T_A=75^\circ C$	$I_{F(AV)}$	3.0							A
Peak forward surge current 8.3ms single half-sine-wave superimposed on rated load @ $T_J=125^\circ C$	$I_{FSM}$	100							A
Maximum instantaneous forward voltage @ 3.0A	$V_F$	0.95				1.25		1.7	V
Maximum reverse current @ $T_A=25^\circ C$ at rated DC blocking voltage @ $T_A=125^\circ C$	$I_R$	5.0				300			$\mu A$
Maximum reverse recovery time (Note 1)	$t_{rr}$	35				ns			
Typical junction capacitance (Note 2)	$C_J$	95				pF			
Typical thermal resistance (Note 3)	$R_{\theta JA}$	40				$^\circ C/W$			
Operating junction temperature range	$T_J$	- 55 ----- + 150							$^\circ C$
Storage temperature range	$T_{STG}$	- 55 ----- + 150							$^\circ C$

NOTE: 1. Measured with  $I_F=0.5A$ ,  $I_R=1A$ ,  $I_{rr}=0.25A$ .

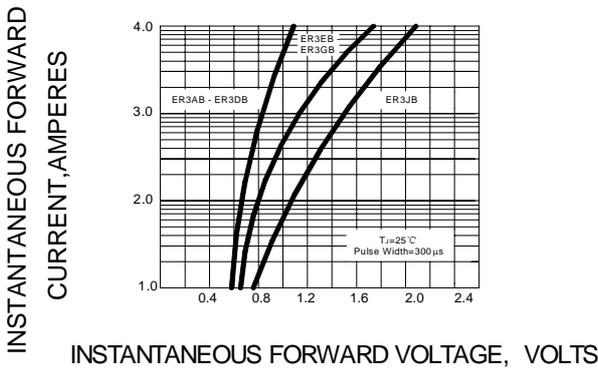
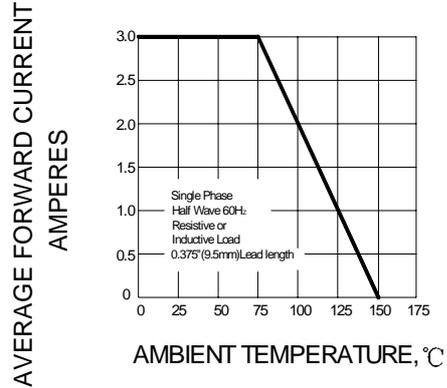
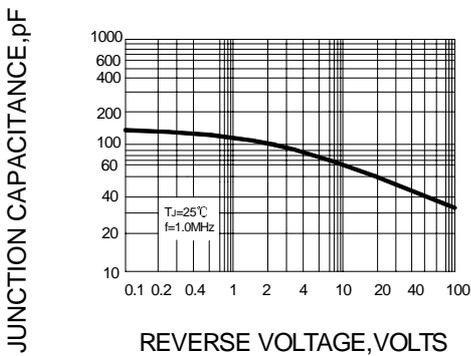
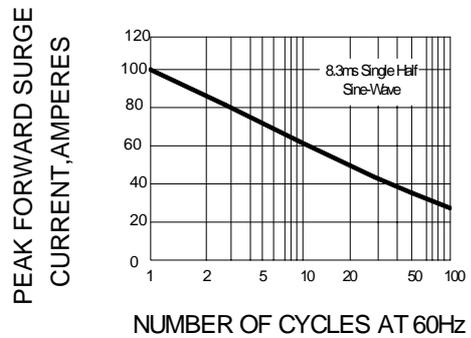
2. Measured at 1.0MHz and applied reverse voltage of 4.0V DC.

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**
