

**VOLTAGE RANGE: 50 --- 600 V**

**CURRENT: 3.0 A**



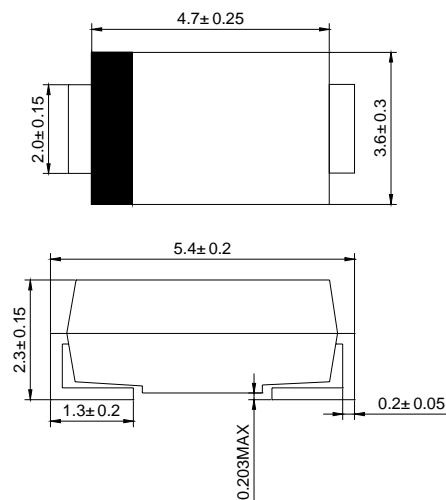
**DO - 214AA(SMB)**

## 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: JEDEC DO-214AA, molded plastic
- ◇ Polarity: Color band denotes cathode
- ◇ Weight: 0.003 ounces, 0.093 grams
- ◇ Mounting position: Any



Dimensions in millimeters

## MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

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

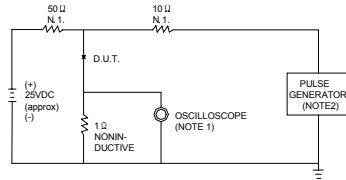
		ER3AB	ER3BB	ER3CB	ER3DB	ER3EB	ER3GB	ER3JB	UNITS
Maximum recurrent peak reverse voltage	$V_{RRM}$	50	100	150	200	300	400	600	V
Maximum RMS voltage	$V_{RMS}$	35	70	105	140	210	280	420	V
Maximum DC blocking voltage	$V_{DC}$	50	100	150	200	300	400	600	V
Maximum average forward rectified current @ $T_A = 75^\circ C$	$I_{F(AV)}$	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  $I_F = 0.5A$ ,  $I_R = 1A$ ,  $t_{rr} = 0.25A$ .

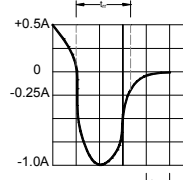
2. Measured at 1.0MHz and applied reverse voltage of 4.0V DC.

3. Thermal resistance junction to ambient.

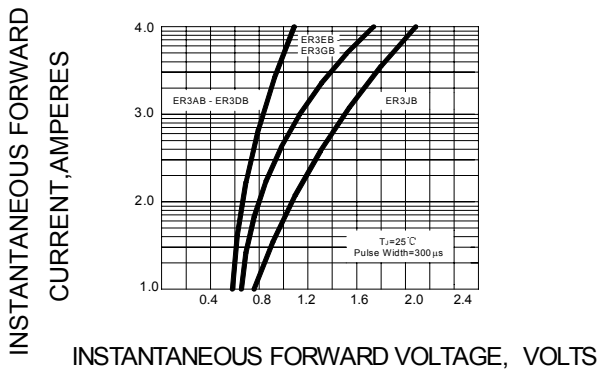
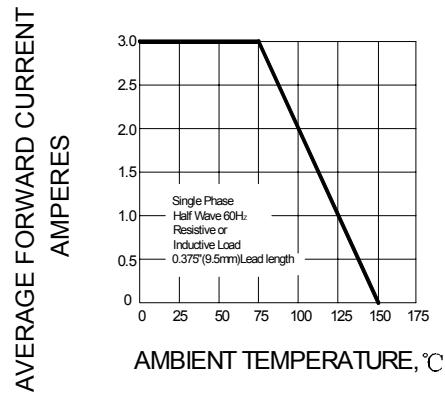
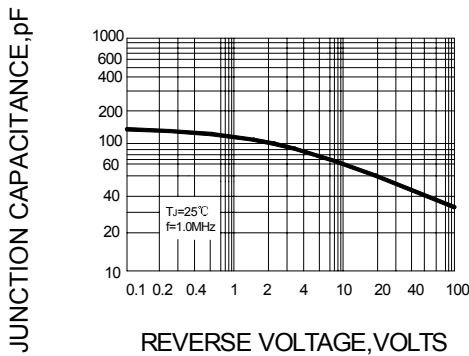
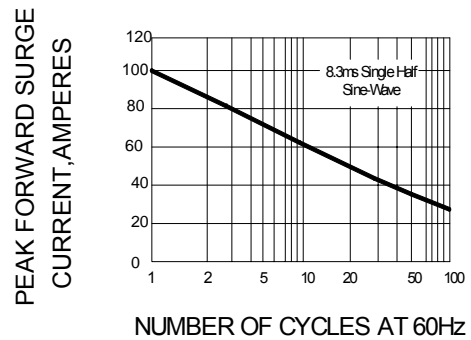
## Ratings AND Characteristic Curves

**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**
