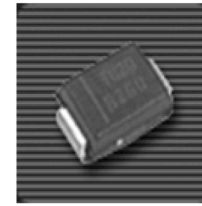


## Features

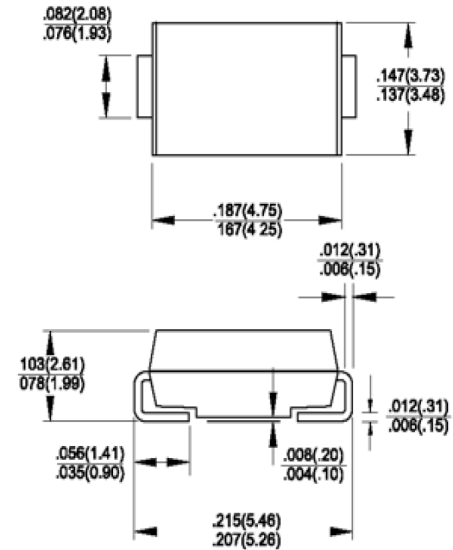
- ◆ Glass passivated chip
- ◆ Super fast switching for high efficiency
- ◆ For surface mounted applications
- ◆ Low forward voltage drop and high current capability
- ◆ Low reverse leakage current
- ◆ Plastic material has UL flammability classification 94V-0



DO-214AA (SMB)

## Mechanical Data

- ◆ Case : Molded plastic
- ◆ Polarity : Color band denote cathode
- ◆ Weight : 0.003 ounce, 0.093 gram



Dimensions in inches and (millimeters)

## Maximum Ratings and Electrical Characteristics

Ratings at 25°C ambient temperature unless otherwise specified.

Single phase, half wave, 60Hz, resistive or inductive load.

For capacitive load, derate current by 20%

Parameter	Symbols	ES 3AB	ES 3BB	ES 3CB	ES 3DB	ES 3FB	ES 3GB	ES 3JB	ES 3KB	ES 3MB	Units	
Maximum repetitive peak reverse voltage	$V_{RRM}$	50	100	150	200	300	400	600	800	1000	Volts	
Maximum RMS voltage	$V_{RMS}$	35	70	105	140	210	280	420	560	700	Volts	
Maximum DC blocking voltage	$V_{DC}$	50	100	150	200	300	400	600	800	1000	Volts	
Maximum average forward rectified current @ $T_L = 100^\circ\text{C}$	$I_{(AV)}$	3.0									Amps	
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	$I_{FSM}$	100.0									Amps	
Maximum forward voltage @ 3.0A DC	$V_F$	0.92			1.25			1.7			Volts	
Maximum DC reverse current at rated DC blocking voltage @ $T_J = 25^\circ\text{C}$ @ $T_J = 125^\circ\text{C}$	$I_R$	10.0					500					$\mu\text{A}$ $\mu\text{A}$
Maximum reverse recovery time (Note 1)	$t_{rr}$	35										nS
Typical junction capacitance (Note 2)	$C_J$	45										pF
Typical thermal resistance (Note 3) (Note 4)	$R_{\theta JL}$ $R_{\theta JA}$	10					50					$^\circ\text{C/W}$
Operating junction temperature range	$T_J$	-55 to +150										$^\circ\text{C}$
Storage temperature range	$T_{STG}$	-55 to +150										$^\circ\text{C}$

- Notes:
1. Reverse Recovery Test Conditions:  $I_F = 0.5\text{A}$ ,  $I_R = 1.0\text{A}$ ,  $I_{RR} = 0.25\text{A}$
  2. Measured at 1.0MHz and applied reverse voltage of 4.0V DC.
  3. Thermal Resistance junction to Lead.
  4. Thermal Resistance junction to Ambient.

# RATINGS AND CHARACTERISTIC CURVES

FIG.1 - FORWARD CURRENT DERATING CURVE

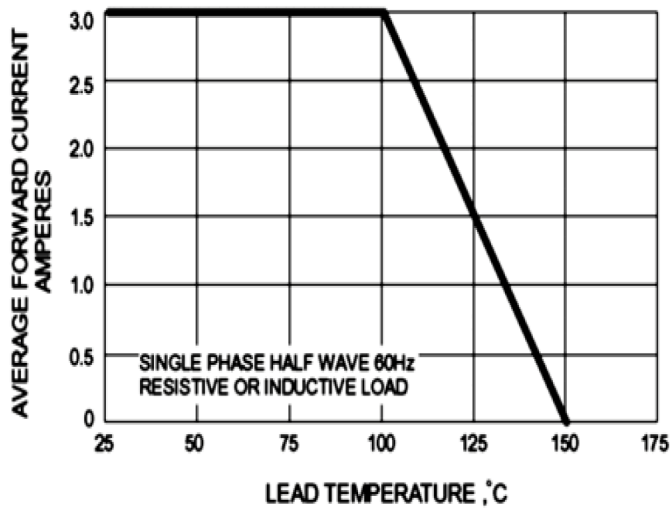


FIG.2 - MAXIMUM NON-REPETITIVE SURGE CURRENT

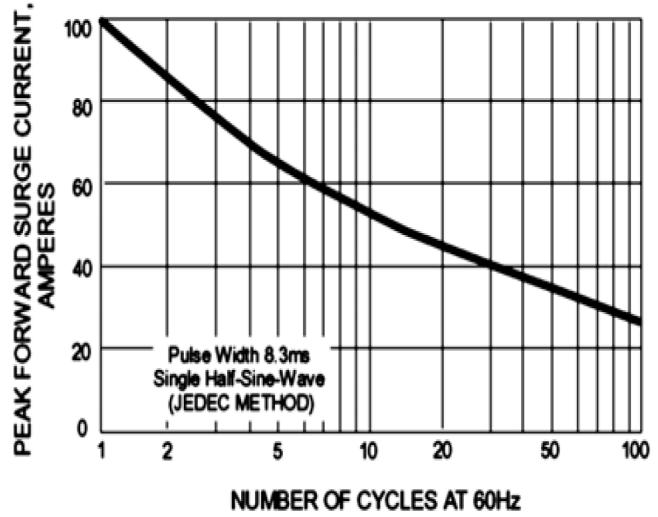


FIG.3 - TYPICAL FORWARD CHARACTERISTICS

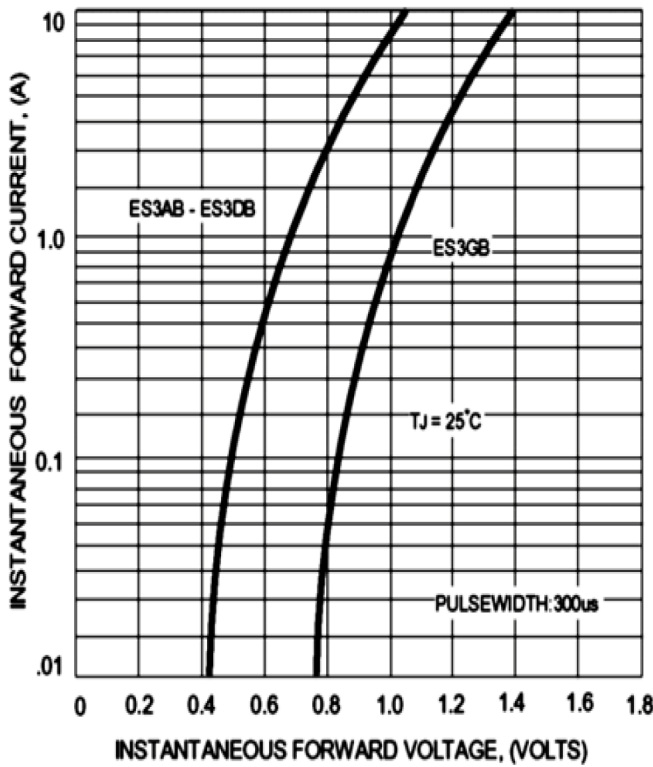


FIG.4 - TYPICAL REVERSE CHARACTERISTICS

