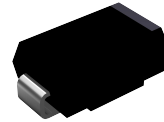


Features

- ◆ 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



Mechanical Data

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

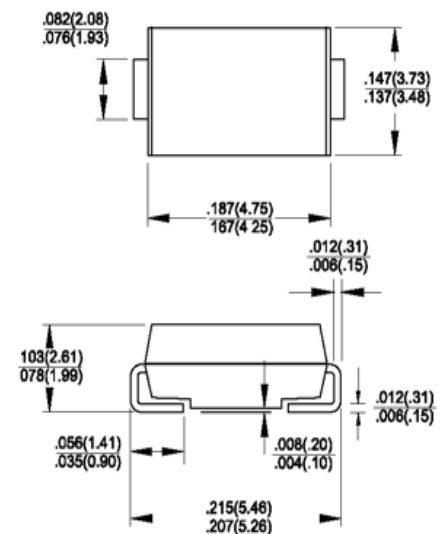
Maximum Ratings and Electrical Characteristics

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%

DO-214AA (SMB)



Dimensions in inches and (millimeters)

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 @ $T_c=100^\circ\text{C}$	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					μA μA
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

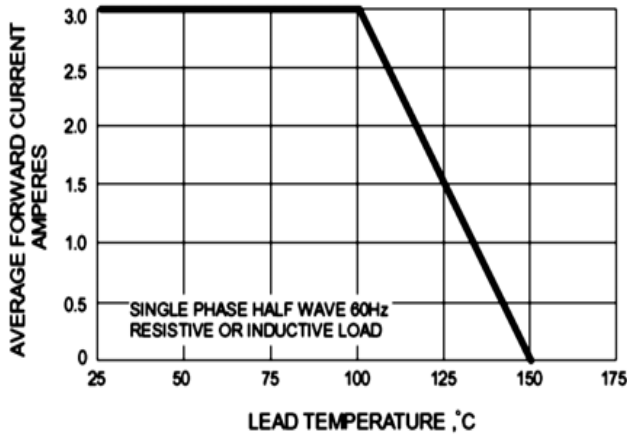


FIG.2 - MAXIMUM NON-REPETITIVE SURGE CURRENT

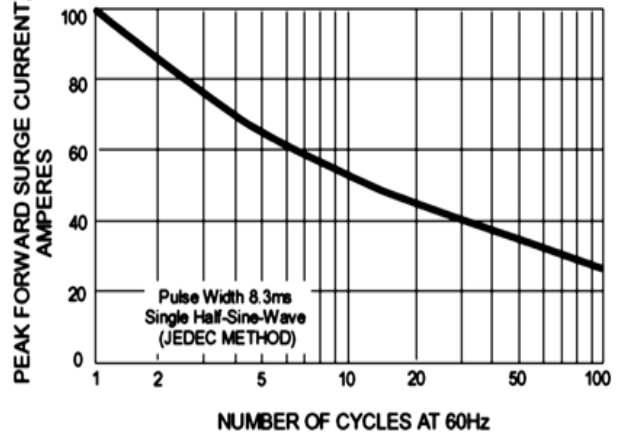


FIG.3 - TYPICAL FORWARD CHARACTERISTICS

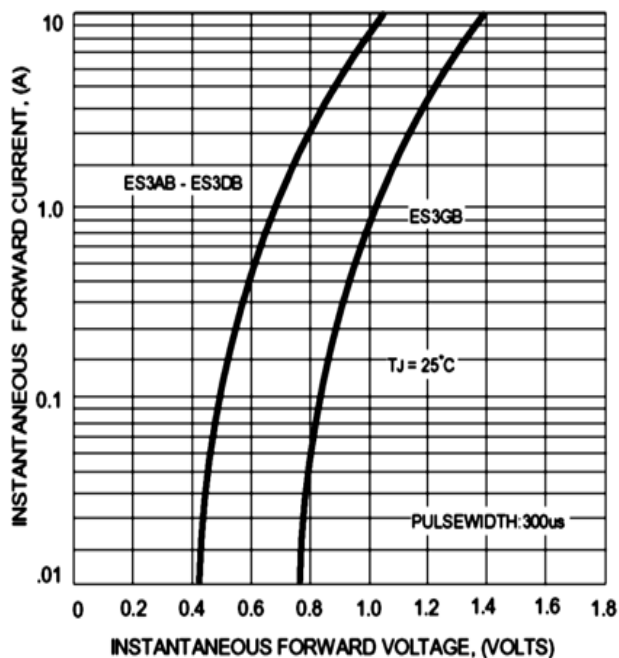


FIG.4 - TYPICAL REVERSE CHARACTERISTICS

