



# ES2AA thru ES2MA

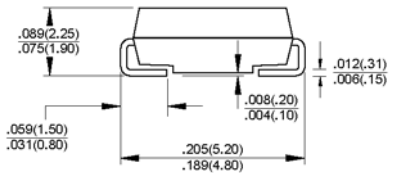
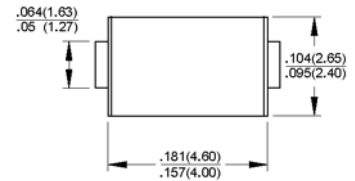
Super Fast Surface Mount Rectifiers  
Reverse Voltage 50 to 1000 Volts Forward Current 2.0 Amperes

## 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-214AC (SMA)



Dimensions in inches and (millimeters)

## Mechanical Data

- ◆ Case : Molded plastic
- ◆ Polarity : Indicated by cathode band
- ◆ Weight : 0.002 ounce, 0.064 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%

Parameter	Symbols	ES 2AA	ES 2BA	ES 2CA	ES 2DA	ES 2FA	ES 2GA	ES 2JA	ES 2KA	ES 2MA	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 @ $T_L=110^\circ\text{C}$	$I_{AV}$	2.0									Amps	
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	$I_{FSM}$	50.0									Amps	
Maximum instantaneous forward voltage @ 2.0A DC	$V_F$	0.92			1.25			1.7			Volts	
Maximum DC reverse current at rated DC blocking voltage @ $T_J=25^\circ\text{C}$ @ $T_J=125^\circ\text{C}$	$I_R$	5.0					350					$\mu\text{A}$ $\mu\text{A}$
Maximum reverse recovery time (Note 1)	$t_{rr}$	25										nS
Typical junction capacitance (Note 2)	$C_J$	25										pF
Typical thermal resistance (Note 3)	$R_{\theta JL}$	20										$^\circ\text{C}/\text{W}$
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.

## RATINGS AND CHARACTERISTIC CURVES

FIG. 1 - FORWARD CURRENT DERATING CURVE

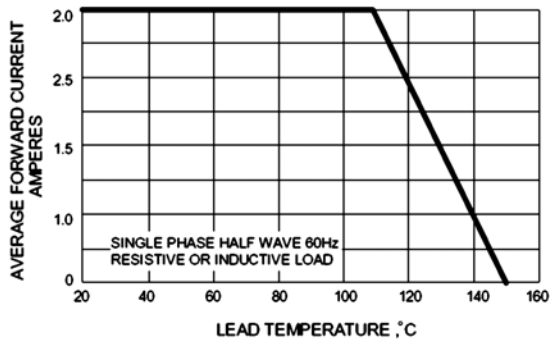


FIG. 2 - MAXIMUM NON-REPETITIVE SURGE CURRENT

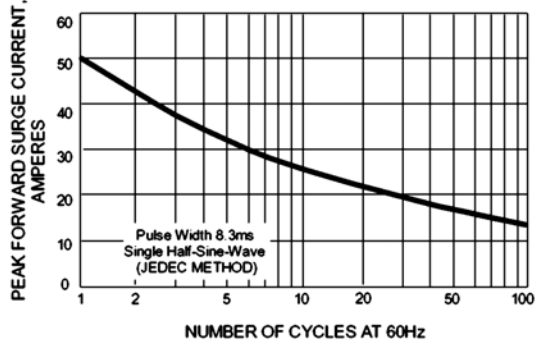


FIG. 3 - TYPICAL FORWARD CHARACTERISTICS

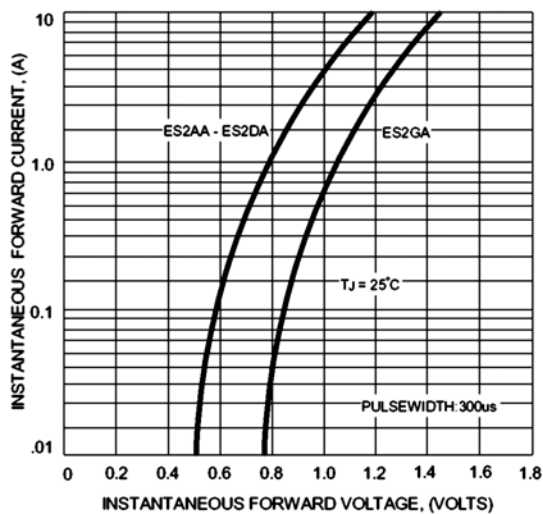


FIG. 4 - TYPICAL REVERSE CHARACTERISTICS

