



ES2AA thru ES2JA

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

Features

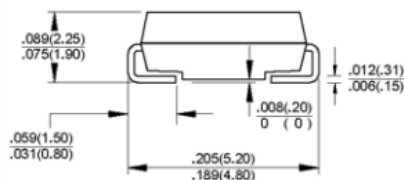
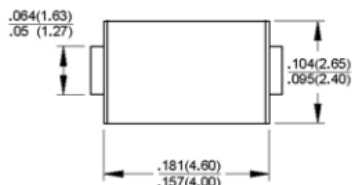
- ◆ Glass passivated chip
- ◆ Super fast switching for high efficiency
- ◆ For surface mounted applications
- ◆ Low forward voltage drop and high current capability
- ◆ Low reverse leakage current
- ◆ Plastic material has UL flammability classification 94V-0



DO-214AC (SMA)

Mechanical Data

- ◆ Case : Molded plastic
- ◆ Polarity : Indicated by cathode band
- ◆ Weight : 0.002 ounce, 0.064 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 2AA	ES 2BA	ES 2CA	ES 2DA	ES 2FA	ES 2GA	ES 2JA	Units
Maximum repetitive peak reverse voltage	V_{RRM}	50	100	150	200	300	400	600	Volts
Maximum RMS voltage	V_{RMS}	35	70	105	140	210	280	420	Volts
Maximum DC blocking voltage	V_{DC}	50	100	150	200	300	400	600	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 @ $T_J=25^{\circ}\text{C}$	I_R	5.0							μA
at rated DC blocking voltage @ $T_J=125^{\circ}\text{C}$		350							μA
Maximum reverse recovery time (Note 1)	t_r	35							nS
Typical junction capacitance (Note 2)	C_j	25							pF
Typical thermal resistance (Note 3)	$R_{\theta JL}$	20							$^{\circ}\text{C/W}$
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.

RATINGS AND CHARACTERISTIC CURVES

FIG.1 - FORWARD CURRENT DERATING CURVE

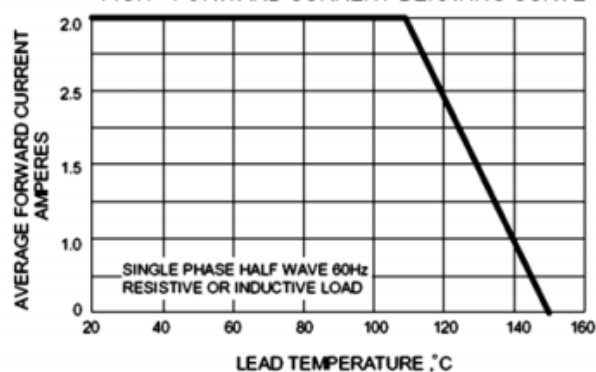


FIG.2 - MAXIMUM NON-REPETITIVE SURGE CURRENT

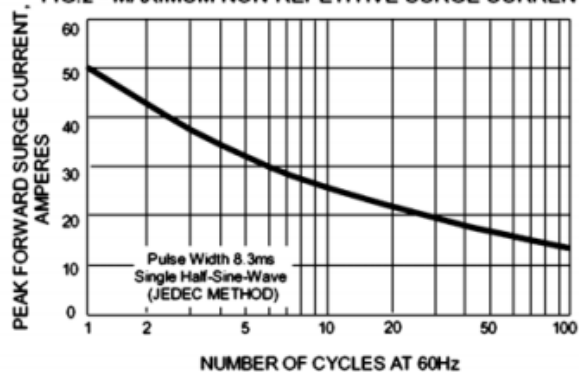


FIG.3 - TYPICAL FORWARD CHARACTERISTICS

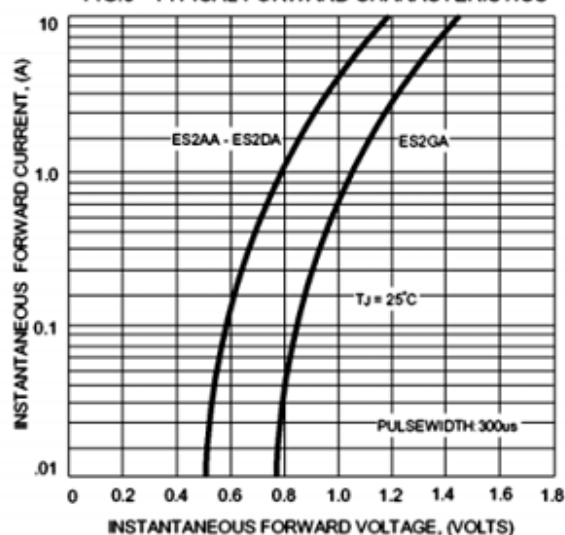


FIG.4 - TYPICAL REVERSE CHARACTERISTICS

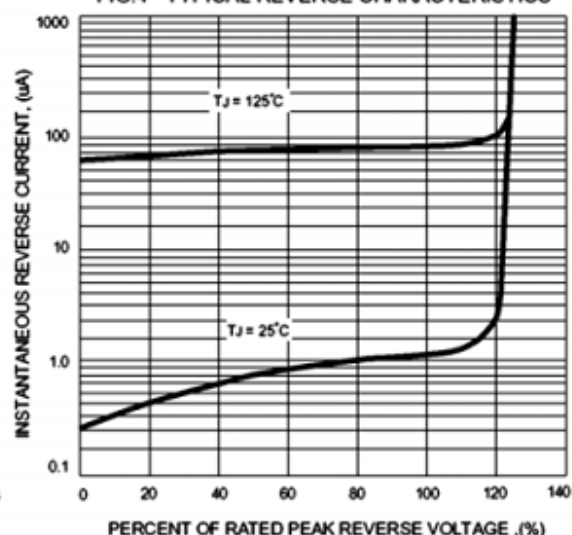


FIG.5- TYPICAL JUNCTION CAPACITANCE

