

III. Fast / Ultra Fast / Super Fast Recovery Rectifier

2.0A Surface Mount Super Fast Recovery Rectifier

ES2AA~ES2JA

(Package: SMA (DO-214AC))

<p>FEATURES</p> <ul style="list-style-type: none"> • The plastic package carries Underwriters Laboratory Flammability Classification 94V-0 • For surface mounted applications • Super fast switching for high efficiency • Low reverse leakage • Built-in strain relief, ideal for automated placement • High forward surge current capability • High temperature soldering guaranteed: 250 /10 seconds at terminals <p>MECHANICAL DATA</p> <ul style="list-style-type: none"> • Case : JEDEC DO-214AC molded plastic body • Terminals : Solder plated, solderable per MIL-STD-750, Method 2026 • Polarity : Color band denotes cathode end • Mounting Position : Any • Weight : 0.058 grams 	<p>Case: SMA Dimensions in inches and (millimeters)</p>
--	---

Ratings & Electrical Characteristics

Ratings at 25 °C ambient temperature unless otherwise specified.

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

Characteristics	Symbol	ES2AA	ES2BA	ES2CA	ES2DA	ES2EA	ES2GA	ES2JA	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 at $T_L = 110$	I_O	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 at 2.0A	V_F	0.95				1.30		1.70	Volts
Maximum DC reverse current $T_a = 25$ at rated DC blocking voltage $T_a = 100$	I_R	5.0 200.0							μA
Maximum reverse recovery time (Note 1)	T_{rr}	35							ns
Typical junction capacitance (Note 2)	C_j	60.0							PF
Typical thermal resistance (Note 3)	R_{th-JA}	40.0							/ W
Operating junction and storage temperature range	T_j, T_{stg}	-65 to +150							

Note :

1. Reverse recovery condition $I_F = 0.5A, I_R = 1.0A, I_{RR} = 0.25A$
2. Measured at 1 MHz and applied reverse voltage of 4.0 volts D.C.
3. P.C.B. mounted with 0.2 x 0.2" (5.0 x 5.0mm) copper pad areas

Ratings and Characteristic Curves of ES2AA~ES2JA

