



# ES1AS THRU ES1JS

## Surface Mount Super Fast Recovery Rectifier

### Features

- Low profile package
- Ideal for automated placement
- Glass passivated chip junction
- High forward surge capability
- Super Fast reverse recovery time
- Meets MSL level 1, per J-STD-020, LF maximum peak of 260 °C

### Typical Applications

For use in high frequency rectification of power supplies, inverters, converters, and freewheeling diodes for consumer, and telecommunication.

### Mechanical Data

- Package:** DO-214AC (SMA)
- Molding compound meets UL 94 V-0 flammability rating, RoHS-compliant
- Terminals:** Tin plated leads, solderable per J-STD-002 and JESD22-B102
- Polarity:** Cathode line denotes the cathode end

### Maximum Ratings (T<sub>a</sub>=25 Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	ES1AS	ES1BS	ES1CS	ES1DS	ES1FS	ES1GS	ES1HS	ES1JS
Device marking code			ES1AS	ES1BS	ES1CS	ES1DS	ES1FS	ES1GS		ES1JS
Maximum Repetitive Peak Reverse Voltage	VRRM	V	50	100	150	200	300	400	500	600
Maximum RMS Voltage	VRMS	V	35	70	105	140	210	280	350	420
Maximum DC blocking Voltage	VDC	V	50	100	150	200	300	400	500	600
Average rectified output current @60Hz sine wave, resistance load, TL (Fig.1)	I <sub>o</sub>	A	1.0							
Forward Surge Current (Non-repetitive) @60Hz Half-sine wave, 1 cycle, T <sub>j</sub> =25	I <sub>FSM</sub>	A	30							
Forward Surge Current (Non-repetitive) @1ms, square wave, 1 cycle, T <sub>j</sub> =25			60							
Current squared time @1ms t 8.3ms T <sub>j</sub> =25	I <sup>2</sup> t	A <sup>2</sup> s	3.735							
Storage temperature	T <sub>stg</sub>		-55 ~ +150							
Junction temperature	T <sub>j</sub>		-55 ~ +150							

### Electrical Characteristics (T<sub>a</sub>=25 Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	TEST CONDITIONS	ES1AS	ES1BS	ES1CS	ES1DS	ES1FS	ES1GS	ES1HS	ES1JS
Maximum instantaneous forward voltage	V <sub>F</sub>	V	IFM=1.0A	0.95			1.3		1.7		
Maximum reverse recovery time	t <sub>rr</sub>	ns	I <sub>F</sub> =0.5A, I <sub>R</sub> =1.0A, I <sub>r</sub> =0.25A	35							
Maximum DC reverse current at	I <sub>R</sub>	μA	T <sub>j</sub> =25	5							
			T <sub>j</sub> =125	100							





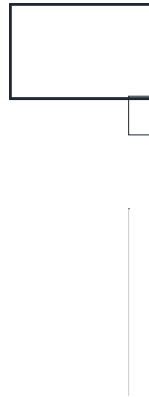
**Ordering Information (Example)**

PREFERRED P/N	
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## Suggested Pad Layout



DO-214AC(SMA)	
Dim	Millimeters
P1	4.00
P2	1.50
P3	6.50
Q1	2.50
Q2	1.70



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## Disclaimer

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