

SUPER FAST RECOVERY RECTIFIERS

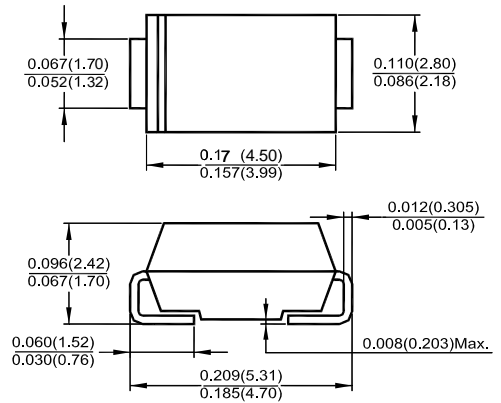
FEATURES

- Plastic package has Underwriters Laboratories Flammability Classification 94V-0
- Easy pick and place
- For surface mounted applications
- Low profile package
- Built-in strain relief
- Superfast recovery times for high efficiency

MECHANICAL DATA

- SMA (DO-214AC) molded plastic
- Polarity: Color band denotes cathode end

ES1A---ES1J



Dimensions in inches and (millimeters)  
DO-214AC (SMA)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25 °C ambient temperature unless otherwise specified. Single phase, half wave, 60 Hz, resistive or inductive load. For capacitive load, derate current by 20%.

CHARACTERISTICS	SYMBOL	ES1A	ES1B	ES1D	ES1G	ES1J	UNIT
Maximum Recurrent Peak Reverse Voltage	VRRM	50	100	200	400	600	V
Maximum RMS Voltage	VRMS	35	70	140	280	420	V
Maximum DC Blocking Voltage	VDC	50	100	200	400	600	V
Maximum Average Forward Rectified Current @TA=55 °C	IAV	1.0					A
Peak Forward Surge Current 8.3ms Single Half Sine-Wave Super Imposed on Rated Load(JEDEC Method)	IFSM	30					A
Peak Forward Voltage at 1.0A DC	VF	0.95		1.25	1.70	V	
Maximum DC Reverse Current at Rated DC Blocking Voltage @TJ=25°C @TJ=100°C	IR	5.0 100					µA
Maximum Reverse Recovery Time(Note 1)	TRR	35					nS
Typical Junction Capacitance (Note2)	CJ	30			25		pF
Typical Thermal Resistance (Note3)	RθJA	40					°C/W
Operating Temperature Range	TJ	-55 to +150					°C
Storage Temperature Range	TSTG	-55 to +150					°C

NOTES: 1.Measured with IF=0.5A, IR=1A, IRR=0.25A

2.Measured at 1.0 MHz and applied reverse voltage of 4.0V DC

3.Thermal resistance junction of ambient.

ES1A---ES1J Typical Characteristics

FIG. 1 – FORWARD CURRENT DERATING CURVE

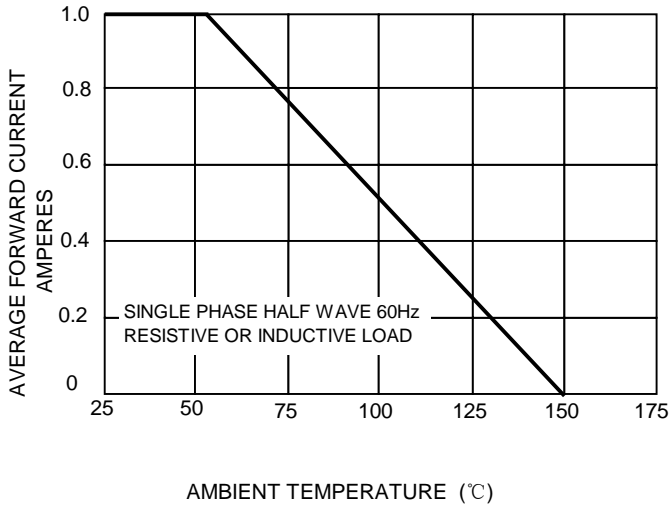


FIG. 2 – MAXIMUM NON-REPETITIVE SURGE CURRENT

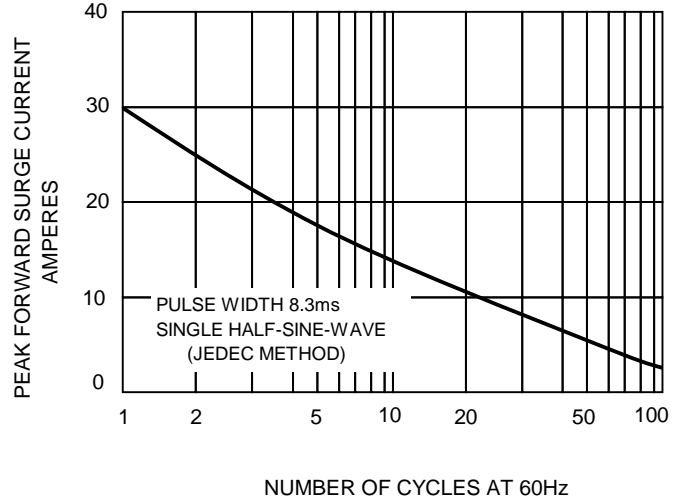


FIG.3 – TYPICAL JUNCTION CAPACITANCE

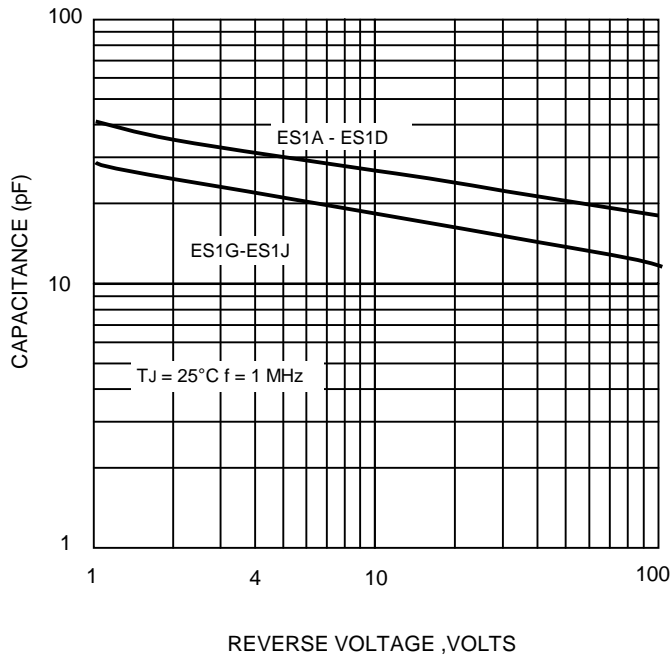


FIG.4-TYPICAL FORWARD CHARACTERISTICS

