ES1A THRU ES1J

1.0AMP SURFACE MOUNT SUPER FAST RECTIFIERS



FEATURES

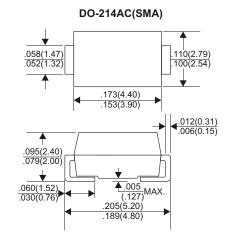
- * Ideal for surface mount applications
- * Easy pick and place
- * Built-in strain relief
- * Super fast recovery time for high speed switching

MECHANICAL DATA

- * Case: Molded plastic
- * Epoxy: UL 94V-0 rate flame retardant
- * Metallurgically bonded construction
- * Polarity: Color band denotes cathode end
- * Mounting position: Any
- * Weight: 0.063 gram

VOLTAGE RANGE 50 to 400 Volts CURRENT

1.0 Ampere



Dimensions in inches and (millimeters)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating 25°C ambient temperature uniess otherwies specified. Single phase half wave, 60Hz, resistive or inductive load. For capacitive load, derate current by 20%.

TYPE NUMBER	ES1A	ES1B	ES1C	ES1D	ES1E	ES1G	ES1J	UNITS
Maximum Recurrent Peak Reverse Voltage		100	150	200	300	400	600	V
Maximum RMS Voltage		70	105	140	210	280	420	V
Maximum DC Blocking Voltage	50	100	150	200	300	400	600	V
Maximum Average Forward Rectified Current								
at T _L =110°C	1.0						Α	
Peak Forward Surge Current, 8.3 ms single half sine-wave								
superimposed on rated load (JEDEC method)				30				Α
Maximum Instantaneous Forward Voltage at 1.0A	0.95 1.25 1.7					1.7	V	
Maximum DC Reverse Current Ta=25°C	5.0						μА	
at Rated DC Blocking Voltage Ta=100°C	500						μА	
Maximum Reverse Recovery Time (Note 1)	35			nS				
Typical Junction Capacitance (Note 2)	10						pF	
Operating and Storage Temperature Range Тл, Тsтс	-65—+150					°C		

NOTES

- 1. Reverse Recovery Time test condition: IF=0.5A, IR=1.0A, IRR=0.25A
- 2. Measured at 1MHz and applied reverse voltage of 4.0V D.C.

SYMBOL	ES1A	ES1B	ES1C	ES1D	ES1E	ES1G	ES1J
MARKING	ES1A	ES1B	ES1C	ES1D	ES1E	ES1G	ES1J

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RATING AND CHARACTERISTIC CURVES (ES1A THRU ES1J)

FIG.1-TYPICAL FORWARD

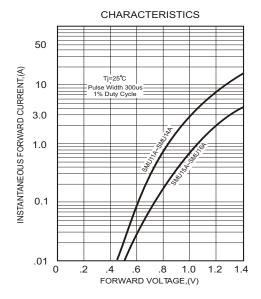
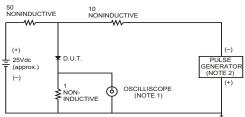


FIG.3- TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTICS



NOTES: 1. Rise Time= 7ns max., Input Impedance= 1 megohm.22pF.

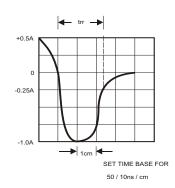


FIG.2-TYPICAL FORWARD CURRENT DERATING CURVE

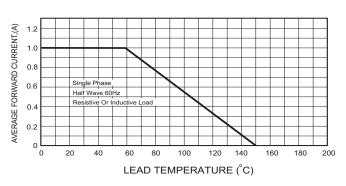


FIG.4-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

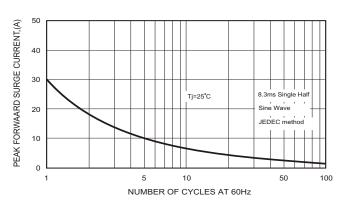
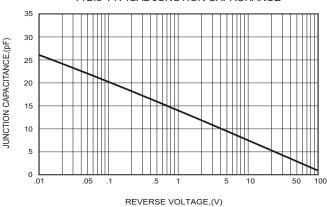


FIG.5-TYPICAL JUNCTION CAPACITANCE



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