

ES1A THRU ES1J

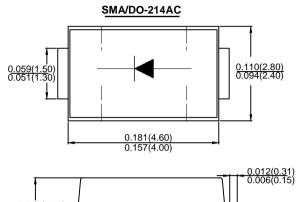
1.0AMP SURFACE MOUNT GLASS SUPERFAST RECOVERY RECTIFIER

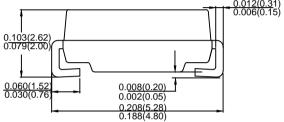
Features

- Low Power Loss, High Efficiency
- Ideally Suited for Automatic Assembly
- Guard Ring Die Construction
- Plastic Case Material has UL Flammability Classification Rating 94V - 0

Mechanical Data

- · Case: Molded plastic SMA
- Terminals: Plated leads solderable per MIL-STD-750, Method 2026 guaranteed
- · Polarity: Color band dentes cathode end
- Mounting Position: Any
- · Making: Type Number





Dimensions in inches and (millimeters)

Maximum Ratings and Electrical Characteristics

Rating at 25°C ambient temperature unless otherwise specified

Single phase, half wave, 60Hz, resistive or inductive load

For capacitive load derate current by 20%

Type Number	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	V _{DC}	50	100	200	400	600	V
Average Rectified Output Current @T _L =100 °C	IF(AV)			1.0			А
Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method)	İfsm	35					А
Rating for fusing (t<8.3ms)	l ² t	5.08					A ² s
Forward Voltage @IF=1.0A	V _{FM}		0.95		1.3	1.7	V
Peak Reverse Current @T _A =25 °C	I _R 5.0 200						uA
At Rated DC Blocking Voltage @T _A =125 ℃							
Maximum Reverse Recovery Time (Note1)	Trr	35					ns
Typical Junction Capacitance (Note 2)	CJ	20 7				pF	
Typical Thermal Resistance Junction to Ambient(Note 3)	Re JA	34					°C/W
Operating Temperature Range	TJ	-55 to+150					$^{\circ}\!\mathbb{C}$
Storage Temperature Range	Тѕтс	-55 to +150					$^{\circ}\mathbb{C}$

Note: 1.Reverse Recovery Test Conditions:IF=0.5A,IR=1.0A,IRR=0.25A.

- 2. Measured at 1.0 MHz and Applied reverse Voltage of 4.0V D.C
- 3. Device mounted on FR-4 substrate, 1"*1", 2oz, single-sided, PC boards with 0.1"*0.15" copper pad.



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INSTANTANEOUS FORWARD CURRENT, (A)

AVERAGE FORWARD RECIFIED CURRENT(A)

I_{FSM}, PEAK FORWARD SURGE CURRENT (A)

INVSTANTANEOUS REVERSE CURRENT, MICROAMPERES

FIG.1MAXIMUM AVERAGE FORWARD CURRENT DERATING

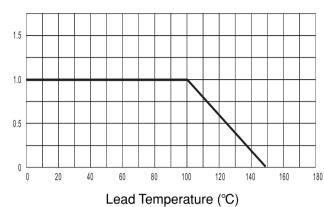


FIG.3MAXIMUM NON-REPEITIVE SURGE CURRENT

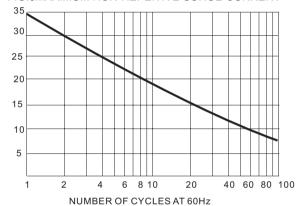
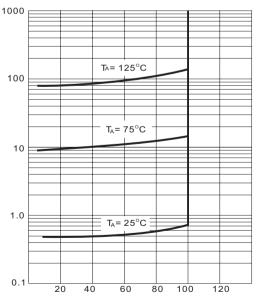


FIG.5TYPICAL REVERSE CHRACTERISTICS



PERCENT OF RATED PEAK INVERSE VOLTGE

FIG.2TYPICAL FORWARD CHARACTERISTICS

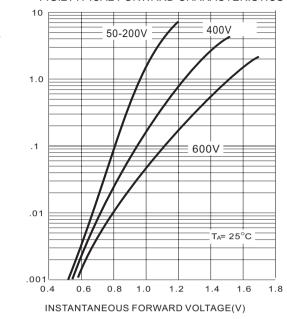
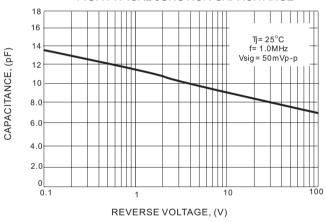
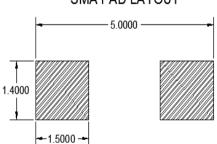


FIG.4TYPICAL JUNCTION CAPACITANCE



SMA PAD LAYOUT





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