

ES2A THRU ES2K

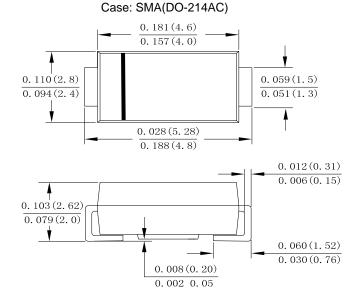
2.0AMP Surface Mount Glass Superfast Recovery Rectifier

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 | ES2A | ES2B | ES2D | ES2G | ES2J | ES2K | Unit |
|---|------------------|------------|------|------|------|------|------|------------------|
| Maximum Recurrent Peak Reverse Voltage | VRRM | 50 | 100 | 200 | 400 | 600 | 800 | V |
| Maximum RMS Voltage | V _{RMS} | 35 | 70 | 140 | 280 | 420 | 560 | V |
| Maximum DC Blocking Voltage | VDC | 50 | 100 | 200 | 400 | 600 | 800 | V |
| Average Rectified Output Current @T∟ =100 °C | IF(AV) | 2.0 | | | | | | Α |
| Non-Repetitive Peak Forward Surge @T _{j=25} °C Current 8.3ms Single half sine-wave@T _{j=125} °C Superimposed On Rated Load (JEDEC Method) | Ігѕм | 60 48 | | | | | | А |
| Non-Repetitive Peak Forward Surge @Tj=25 ℃ Current 1.0ms Single half sine-wave @Tj=125℃ Superimposed On Rated Load (JEDEC Method) | IFSM | 120 96 | | | | | | А |
| 10000 times of the wave surge current (time width 1ms, time interval 3s) | lfsм | 45 | | | | | | Α |
| Rating for fusing (t<8.3ms) | l ² t | 14.94 | | | | | | A ² s |
| Forward Voltage @IF=2.0A | V _{FM} | 0.95 | | | 1.3 | 1.7 | 1.9 | V |
| Peak Reverse Current @T _A =25 °C At Rated DC Blocking Voltage @T _A =125 °C | I _R | 5.0 200 | | | | | | uA |
| Maximum Reverse Recovery Time (Note 1) | Trr | 35 | | | | | | ns |
| Typical Junction Capacitance (Note 2) | Сл | 10 | | | | | | pF |
| Typical Thermal Resistance Junction to Ambient(Note 3) | Re JA | 120 | | | | | | °C/W |
| Operating and Storage Temperature Range | T_J, T_{STG} | -55 to+150 | | | | | | $^{\circ}$ |

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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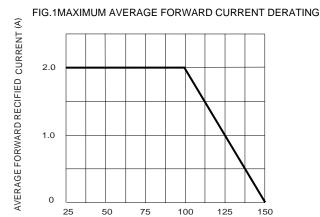


FIG.3MAXIMUM NON-REPEITIVE SURGE CURRENT

Lead Temperature (°C)

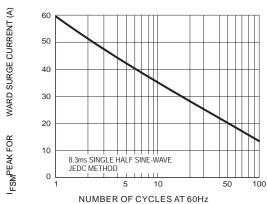


FIG.5TYPICAL REVERSE CHRACTERISTICS

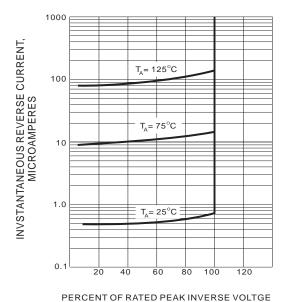


FIG.2TYPICAL FORWARD CHARACTERISTICS

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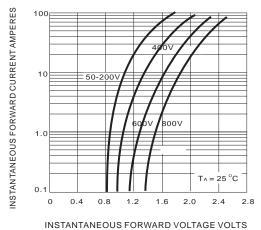
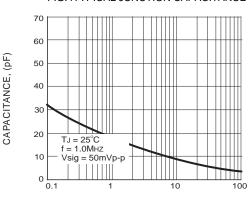
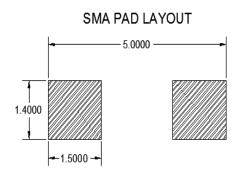


FIG.4TYPICAL JUNCTION CAPACITANCE



REVERSE VOLTAGE, (V)



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