

HS2AA thru HS2MA

Ultrafast Recovery Rectifiers Reverse Voltage 50V-1000V Forward Current 1.5 A

Features

- · Glass passivated junction chip
- · For surface mount applications
- · Low forward voltage drop
- · Low profile package
- · Built-in stain relief, ideal for automated placement
- Fast switching for high efficiency
- Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- Weight: 0.002 ounce, 0.064 gram



Package: SMA (DO-214AC)



Applications

For use of general purpose rectifications in lighting, cellular phones, portable devices, power supplies and other consumer applications.

Maximum Ratings (T_A = 25°C unless otherwise noted)

| Parameter | Symbol | HS2AA | HS2BA | HS2DA | HS2FA | HS2GA | HS2JA | HS2KA | HS2MA | Unit |
|--|--------------------|-------------|-------|-------|-------|-------|-------|-------|--------------------|------|
| Maximum Repetitive Peak Reverse Voltage | V_{RRM} | 50 | 100 | 200 | 300 | 400 | 600 | 800 | 1000 | V |
| Maximum RMS Voltage | V_{RMS} | 35 | 70 | 140 | 210 | 280 | 420 | 560 | 700 | V |
| Maximum DC Blocking Boltage | V_{DC} | 50 | 100 | 200 | 300 | 400 | 600 | 800 | 1000 | V |
| Maximum Average Output Rectified Current | I _{F(AV)} | 1.5 | | | | | | | Α | |
| Peak Forward Surge Current (8.3 ms single half sine-wave superimposed on rated load) | I _{FSM} | 50 | | | | | | | Α | |
| Rating for Fusing (t<8.3ms) | l ² t | 10 | | | | | | | A ² sec | |
| Operating Junction and Storage Temperature Range | T_J, T_{STG} | -55 to +150 | | | | | | °C | | |

Electrical Characteristics (T_A = 25°C unless otherwise noted)

| Parameter | Test Conditions | Symbol | HS2AA | HS2BA | HS2DA | HS2FA | HS2GA | HS2JA | HS2KA | HS2MA | Unit |
|---------------------------------------|--|-----------------|------------|-------|-------|-------|-------|-------|-------|-------|------|
| Maximum Instantaneous Forward Voltage | I _F =1.5A | V _F | 1.0 | | | | 1.3 | 1.7 | | | V |
| ICurrent at Rated DC | T _A =25°C T _A =125°C | I _R | 5.0 100 | | | | | | | μА | |
| Maximum Reverse | I _F =0.5A,I _R =1.0A, I _{RR} =0.25A | t _{rr} | 50 | | | | | 75 | | ns | |
| Typical Junction Capacitance | 4.0 V, 1 MHz | CJ | 50 30 | | | | | pF | | | |

Thermal Characteristics

| Parameter | Symbol | HS2AA | HS2BA | HS2DA | HS2FA | HS2GA | HS2JA | HS2KA | HS2MA | Unit | |
|---|------------------|-------|-------|-------|-------|-------|-------|-------|-------|------|--|
| Typical thermal resistance ⁽¹⁾ | $R_{\theta JA}$ | 67 | | | | | | | | | |
| | R _{eJC} | 27 | | | | | | | | | |
| | $R_{\theta JI}$ | 7 | | | | | | | | | |

Notes:1. The thermal resistance from junction to ambient, case or mount, mounted on P.C.B with 8×8mm copper pads, 2 OZ,FR4 PCB

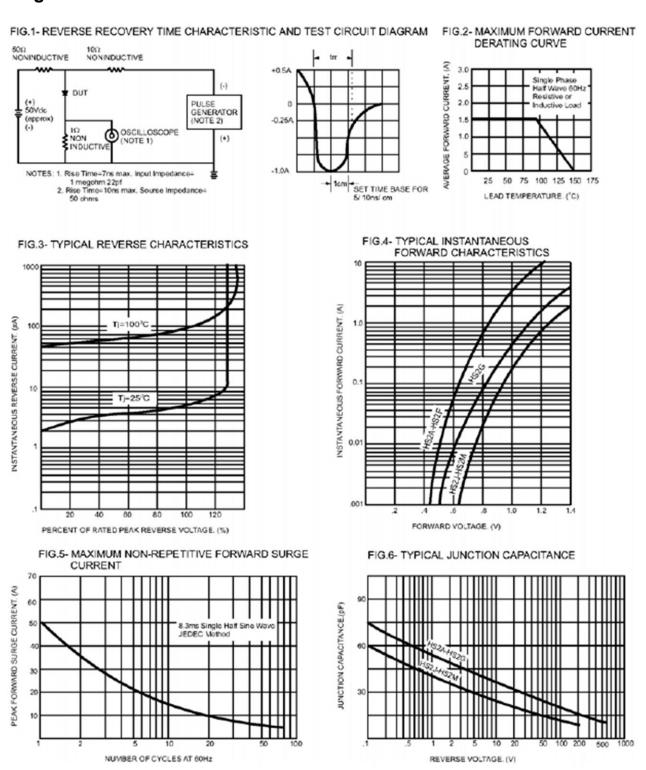


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Ratings and Characteristics Curves (T_A = 25°C unless otherwise noted)





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Package Outline Dimensions

in inches (millimeters)

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