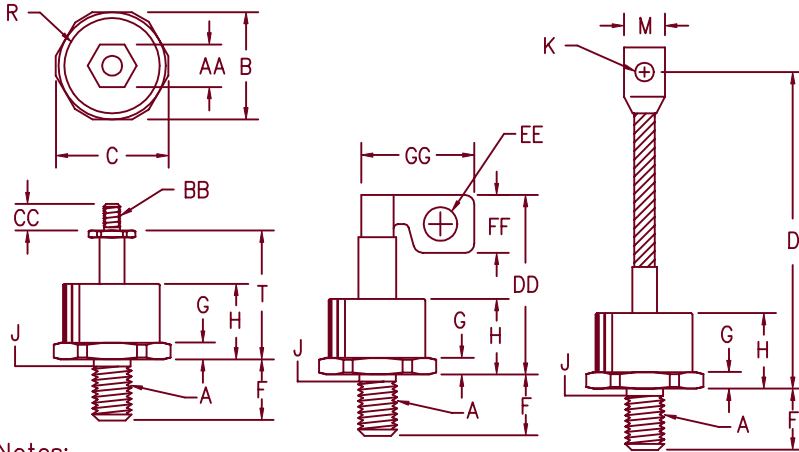


Silicon Power Rectifier S/R43 Series



Notes:

1. 3/8-24 UNF-3A
2. Full threads within 2 1/2 threads
3. Accepts 1/4-28 UNF-2B Nut
4. Reverse polarity: Stud is Anode

| Dim. | Inches | | Millimeter | | Notes |
|------|---------|---------|------------|---------|-------|
| | Minimum | Maximum | Minimum | Maximum | |
| A | --- | --- | --- | --- | 1 |
| B | 1.050 | 1.060 | 26.67 | 26.92 | |
| C | --- | 1.166 | --- | 29.61 | |
| D | 4.30 | 4.70 | 109.22 | 119.38 | |
| F | .610 | .640 | 15.49 | 16.25 | |
| G | .213 | .233 | 5.41 | 5.66 | |
| H | --- | .745 | --- | 18.92 | |
| J | .344 | .373 | 8.74 | 9.47 | 2 |
| K | .276 | .286 | 7.01 | 7.26 | |
| M | .465 | .670 | 11.81 | 17.78 | |
| R | --- | .850 | --- | 21.59 | Dia |
| T | 1.426 | --- | 36.22 | --- | |
| AA | .427 | .437 | 10.84 | 11.09 | |
| BB | --- | --- | --- | --- | 3 |
| CC | .407 | --- | 10.33 | --- | |
| DD | --- | 1.75 | --- | 44.45 | |
| EE | .215 | .225 | 5.46 | 5.72 | Dia |
| FF | .360 | .390 | 9.14 | 9.91 | |
| GG | .740 | .750 | 18.80 | 19.05 | |

| Microsemi Catalog Number | JEDEC Numbers | | Peak Reverse Voltage |
|--------------------------|---------------|----------------|----------------------|
| | 1N2436 | | 50V |
| *S4310 | 1N2437 | 1N3288A 1N4587 | 100V |
| | 1N2438 | | 150V |
| *S4320 | 1N2439 | 1N3289A 1N4588 | 200V |
| | 1N2440 | | 250V |
| *S4330 | 1N2441 | 1N3290A 1N4589 | 300V |
| | 1N2442 | | 350V |
| *S4340 | 1N2443 | 1N3291A 1N4590 | 400V |
| *S4350 | 1N2444 | 1N3292A 1N4591 | 500V |
| *S4360 | 1N2445 | 1N3293A 1N4592 | 600V |
| *S4380 | | 1N3294A 1N4593 | 800V |
| *S43100 | | 1N3295A 1N4594 | 1000V |
| *S43120 | | 1N3296A 1N4595 | 1200V |
| *S43140 | | 1N3297A 1N4596 | 1400V |
| *S43160 | | | 1600V |

*For Reverse Polarity, change S to R
For 1N types, add R suffix for Reverse Polarity
Add the suffix TS to the part number if Top Stud; F for Flag

D0205AA (D08)

- Soft recovery
- Glass Passivated Die
- 2500 Amps Surge Rating
- Glass to metal seal construction
- VRRM to 1600V

Electrical Characteristics

| | | |
|-------------------------------------|---|---|
| Average forward current | IF(AV) 150 Amps | TC = 148°C, Half Sine Wave, RθJC = 0.35°C/W |
| Maximum surge current | IFSM 2500 Amps | 8.3ms, half sine, TJ = 200°C |
| Max I ² t for fusing | I ² t 26000 A ² s | |
| Max peak forward voltage | VFM 1.1 Volts | IFM = 200A: TJ = 25°C* |
| Max peak reverse current | IRM 50 μA | VRRM, TJ = 25°C |
| Max peak reverse current | IRM 5.0 mA | VRRM, TJ = 150°C |
| Max Recommended Operating Frequency | 7.5kHz | |

*Pulse test: Pulse width 300 μsec. Duty cycle 2%

Thermal and Mechanical Characteristics

| | | |
|-------------------------------|------|--------------------------------|
| Storage temperature range | TSTG | -65°C to 200°C |
| Operating junction temp range | TJ | -65°C to 200°C |
| Maximum thermal resistance | RθJC | 0.35°C/W Junction to Case |
| Mounting torque | | 80-100 inch pounds |
| Weight | | 2.75 ounces (78 grams) typical |

1-27-04 Rev. 4

S/R43

Figure 1
Typical Forward Characteristics

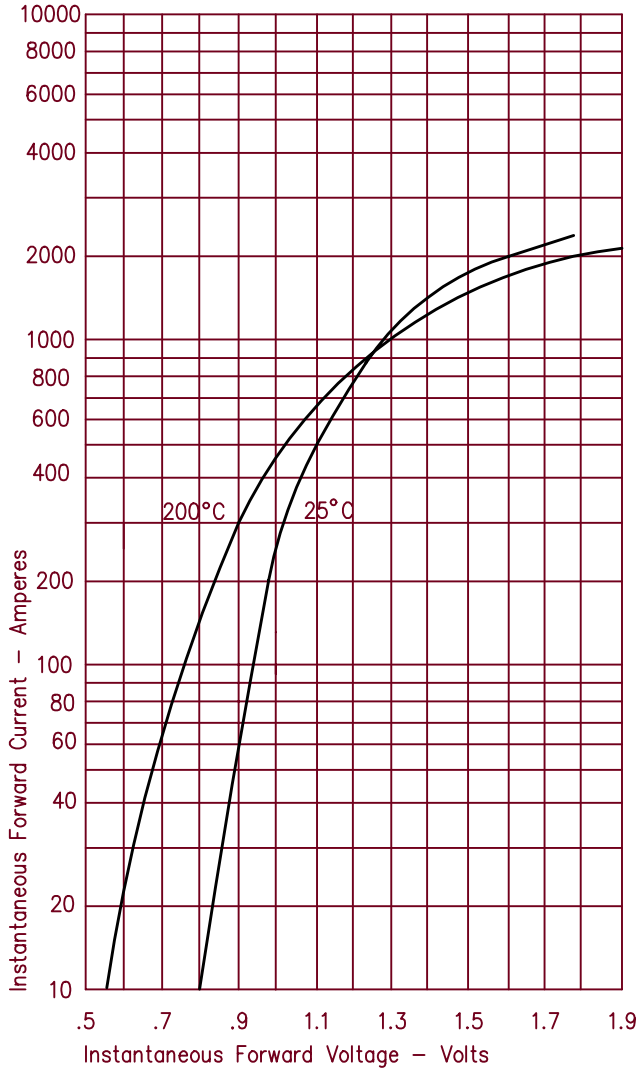


Figure 3
Forward Current Derating

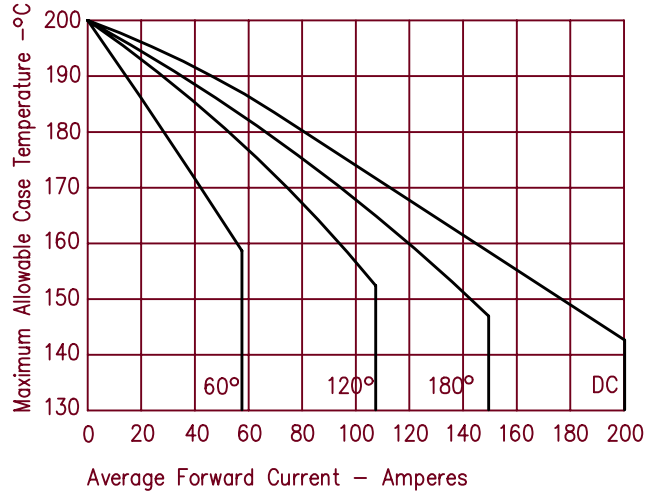


Figure 4
Maximum Forward Power Dissipation

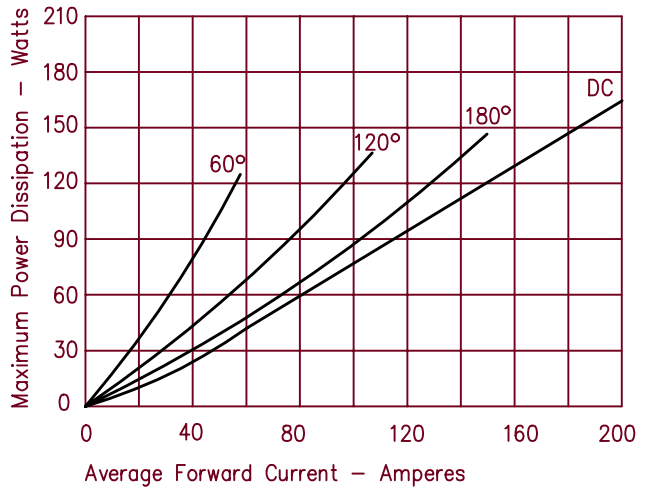


Figure 2
Typical Reverse Characteristics

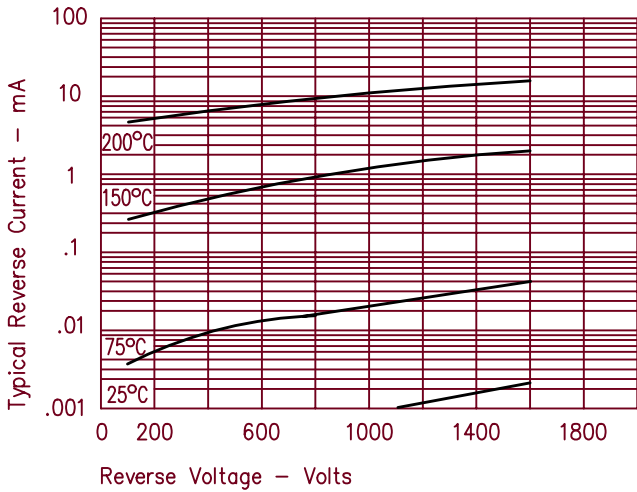


Figure 5
Transient Thermal Impedance

